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ABSTRACT

The report presents the results of the first stage of research into proprietary schools and will be useful to policy makers of Massachusetts as it raises questions, clarifies issues, and compiles available data on the activities of proprietary and public schools in the State. An analysis of the role and activities of proprietary schools will contribute to an understanding of several research issues and policy needs. The questions raised are answered by the analysis of data gathered from students, graduates, and institutional questionnaires, by intensive case studies, and interviews with proprietary and public institutions. Section 1 presents an analysis of the development of interest in proprietary schools and the importance of raising questions about their role in the vocational education system. A review of other research and of the literature is discussed and implications for further research presented. Section 2 describes the initial efforts to quantitatively analyze the proprietary market and its effects on graduates and includes lists of schools and programs in Massachusetts. Section 3 presents available data on the scope and variety of proprietary schools and their relationship to public and non-profit programs. Section 4 provides an overview and summary of the report. (Author/EC)

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President

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March 1974

THE CONTEMPORARY ROLE OF PROPRIETARY INSTITUTIONS IN VOCATIONAL EDUCATION IN MASSACHUSETTS

Final Report of Stage I of a Two-Stage Research Project

U S DEPARTMENT OF HEALTH.
EDUCATION & WELFARE
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POLICY ANALYSIS CONSULTING, RESEARCH AND STAFF DEVELOPMENT FOR GOVERNMENTAL INSTITUTIONAL AND INDUSTRIAL CLIENTS

UNIVERSITY CONSULTANTS, INC.

LETTER OF TRANSMITTAL

Mrs. Mary Warner, Chairman
Massachusetts Advisory Council on Education
182 Tremont Street
Boston, Massachusetts 02111

Dear Mrs. Warner:

In mid-1973, Dr. Joseph Cronin, Secretary of Educational Affairs, and Professor John Dunlop, Harvard University Economics Department, discussed their mutual interest in proprietary schools and decided to initiate a research effort. Dr. Cronin was concerned with the need he perceived for developing a coordinated policy toward proprietary schools in the State of Massachusetts, one based on detailed and objective analysis. Professor Dunlop was interested in the role and activities of proprietary institutions from the theoretical perspective of a labor economist. In the fall of 1973, because of previous work Ms. Valerie Nelson , Professor Richard Freeman, and I had performed on the subject, we were approached to carry out a study which would meet these two interests. The study was begun in December, 1973.

This report presents the first stage of a two-stage research effort. Stage I has been funded jointly by the Advisory Council on Education and Professor Dunlop's research funds, with each source providing $5,000.The report is not intended to present conclusions of research but to provide a base for the research of Stage II. Stage I represents about one-tenth of the total study effort.

During the course of Stage I we compiled available data on proprietary and independent schools and comparable programs in public schools and community colleges. We wish to thank Mr. Donald Carbone, Mr. Joseph DeRosa, and Mr. Owen Kittredge of the Department of Education for their assistance in providing data about programs and enrollments, and for their supportive attitude toward the study effort.

We wish to thank the members of the Advisory Committee to Stage I of the study who have been very helpful individually and collectively in discussing the Stage I report and the planned Stage II research effort in relation to state policy needs.

Finally, we wish also to express our appreciation to the various educational leaders throughout the State with whom we have spoken during the course of the first stage. Proprietary school directors and representatives of State education and manpower agencies have been particularly helpful in clarifying the issues to be addressed in policy and research.

Sincerely,

George J. Nolfi, Jr.
President

FOREWORD

This report constitutes a beginning of what the Massachusetts Advisory Council on Education hopes will be a continuing analysis of the role and operations of proprietary institutions in Massachusetts education. There is a logical sequence for such analysis if the interests of citizens are to be best served. That sequence involved the first step in documenting the scope and variety of proprietary institutions in Massachusetts and the definition of research and policy concerns relevant to moving from questions of scope to questions of quality and public-private coordination. University Consultants, Inc., has accomplished this first step in a way that discloses the complexity and magnitude of the area under consideration.

Any precipitous action taken to seek a "guarantee" of quality in this complex area is apt to create as many problems as it solves. Yet progress toward an evaluation process that promotes a consistent and high level of proprietary service is an obvious need, a need well evidenced by the scope of the field and by the recent newspaper spotlighting of specific problems in proprietary operations. We believe that this report provided a foundation for continued research and the careful development of recommendations concerned with quality and coordination. We recommend the support of that continued research to our state educational boards and to the federal and private agencies that have a clear opportunity to provide a service that can benefit citizens of Massachusetts and all other states as well.

Ronald J. Fitzgerald
Director of Research
for the
Massachusetts Advisory
Council on Education

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INTRODUCTION AND OUTLINE OF THE STUDY

For many years the role of proprietary institutions in training students in business, trade and technical, cosmetology, health, and other areas has not been researched nor recognized. But the increasing government support of and student demand for vocational education and training, the search in traditional higher education for new ways of educating students, and the concern for protecting the student as consumer call for a greater understanding of the role and activities of proprietary schools.

This research effort grows out of and reflects two parallel interests; policy needs and research questions. On the one hand, the State of Massachusetts will increasingly consider proprietary schools in education and manpower policies: the 1202 Commissions to be set up this year require representation from proprietary schools; the Office of Manpower Affairs will make decisions about using funds under the new Comprehensive Employment and Training Act to support or not support students at proprietary schools (as in past programs); the proposed Massachusetts Open University will consider formal transfer and credit arrangements with non-degree-granting institutions; the Board of Higher Education will consider program approval for degree-granting institutions which may duplicate offerings of proprietary schools; the Department of Education will define and implement licensing procedures for proprietary schools; and finally, long-term policies will be discussed to improve the interaction of education and the labor market. The formulation of policies in these areas requires a greater understanding about proprietary schools than current research and theory can provide.

On the other hand, an analysis of the role and activities of proprietary schools will contribute to a better understanding of several current academic research issues: what is the role of profitmaking institutions in a mixed public/private sector such as education; how does the training market respond to needs of the labor market and the economy; how do students make decisions to train; and what is the role of training in social mobility and income distribution?

These two perspectives, policy and research, serve to define the kinds of questions addressed in this study. What do proprietary institutions do, in what subjects, with what kinds of students? In comparison, what do public and non-profit schools and colleges do? What happens to graduates of proprietary, public, and non-profit programs when they enter the labor market and over the long term? What are the objectives and goals of proprietary, public and non-profit schools, how do they operate, allocate funds, etc.? How do proprietary, public and non-profit institutions interact and how well do they individually and together serve the interests and needs of students and employers? These questions will be answered by the analysis of data gathered from student, graduate, and institutional questionnaires and by intensive case studies and interviews with proprietary and public institutions.

This report presents the results of the first stage of research into proprietary schools. It is not intended to present conclusions of research, but rather represents about one-tenth of the total study effort. The document, however, will be useful to policymakers in Massachusetts as it raises questions, clarifies issues, and brings together available data on the activities of proprietary, non-profit and public schools in the State.

Stage I is organized in the following manner: Section I presents an analysis of the development of interest in proprietary schools and the importance of raising questions about their role in the vocational education system. A review of other research and of the literature is discussed and implications for further research presented. Section II describes the initial efforts to quantitatively analyze the proprietary market and its effects on graduates. Section III presents available data on the scope and variety of proprietary schools and their relationship to public and non-profit programs.

I.A. PROPRIETARY SCHOOLS: A NATIONAL PERSPECTIVE

In recent years interest among educators and policymakers has developed in the activities of proprietary schools -- small vocational or avocational educational institutions run for profit. As many as 10,000 to 20,000 of these schools operate across the country enrolling 5 - 6 million students in fields such as business skills, flight training, dance, automotive engineering, barbering and cooking. Despite high enrollments, until recently, little research has been directed to finding out what they do and how well, and most of the public does not even know what is meant by "proprietary" school.

The term "proprietary" is somewhat misleading; although initially most of these schools were owned solely by one person, currently 85% are either corporately owned, part of national chains, or owned by major national corporations.[1] In spite of this change in ownership patterns, "proprietary" schools operate in much the same way as they have since they were first developed in business fields in the mid-nineteenth century. They typically are small (50-500 students), profit-oriented organizations specializing in training of one particular skill or avocation. Courses are generally organized in short, intensive modules and the format is more practical than academic in orientation. Classes are run at many hours to be convenient to the working person, and at graduation vocational proprietary schools usually award certificates or diplomas. Few grant degrees, although many offer A.A.-equivalent programs without the general education component and competencies gained by students are comparable. Since the reputation and hence the financial survival of the vocational proprietary schools depends on job placement of graduates, schools try to provide up-to-date training by maintaining close contact with employers in their fields and faculty are selected more for work experience than for academic background. About one-third of all students are in vocational schools, two-thirds in avocational schools. The majority of vocational students are in business and trade and technical schools and the majority of avocational students in dance and driving schools. There is great diversity in the quality of proprietary schools: the most reputable offer worthwhile training programs, but others practice deceptive advertising, charge excessive fees, and have low job placement rates.[2]

For many years, proprietary schools have operated outside of the formal and highly visible educational structure of degree-granting public and private high schools, community and junior colleges, and colleges. Any student choosing a proprietary school did so on his own, since few guidance counsellors recommended proprietary schools, and except for some licensing requirements, educators and government officials had little contact with these schools. Proprietary schools and large public educational systems were content to leave each other alone since by and large they were not in direct competition. Proprietary schools often functioned in fields where public systems did not have programs or simply did a better job than the local system. For example, proprietary schools were the first to teach typing in the 1880's and computer programming and keypunch skills in the 1960's.[3] The only restrictions on proprietary schools were licensing requirements in some states, having to do with financial soundness of the institution and not the quality of instruction. G.I. Bill and Vocational Rehabilitation benefits could go to students at proprietary schools, but there were no formal transfer arrangements into the public or private educational systems.

Over the last decade, however, competition has become more direct as the community colleges and vocational/technical institutes have been developed to offer more extensive programs in vocational and avocational fields. The laissez-faire policy toward proprietary schools has been questioned. Now educators and policy-makers are concerned about what the proper role of proprietary schools should be in the overall education and training system in this country. Should proprietary schools be left alone as in the past, should they be better utilized by direct government support or contracting, or should the student receive financial aid which he can take to any proprietary, private or public school? How should the student as consumer be protected from deceptive business practices and finally, should proprietary schools be included in statewide and nationwide educational planning efforts?

Answers to these questions bear on such fundamental issues as the proper role of private enterprise in education, the extent to which education should be vocationally-oriented, and what control the student or the professional educator should be given over decisions. The research of Stage II will provide some insights into these issues as well.

Sources of Interest in Proprietary Schools

Concern for the activities of proprietary schools and their proper role in the educational system has developed from a variety of sources described in detail below: a federal commitment to vocational education and manpower training, a financial squeeze in higher education and the need for greater diversity of offerings, FTC hearings into misleading advertising practices of proprietary schools and the need for consumer protection, and finally attempts of proprietary schools to increase access to federal funds or to maintain their market position in the face of expanding public programs. Most of the following discussion relates to vocational, not avocational, proprietary schools.

Federal Commitment to Vocational Education and Manpower Training

In the early 1960's, the U.S. moved to strengthen its trade and technical training at sub-professional levels. Two major training initiatives were made which were relevant to proprietary schools: in 1962, the Manpower Development and Training Act with programs to be run through the Labor Department and the Department of Health, Education, and Welfare and in 1963, the Vocational Education Act (amended in 1968) with programs to be run through HEW. Initially, the focus of MDTA was to be on retraining of unemployed, displaced workers, but through the 1960's, the focus shifted to training of disadvantaged groups. The intent of the Vocational Education Act was to expand opportunities for training of all groups.

These two programs of training were designed by Congress to utilize the resources of proprietary schools where appropriate, yet there has been controversy over the extent to which they have or have not done so. Only the MDTA programs administered by the Labor Department utilized proprietary schools to any degree. In 1968, 20% of their training was carried out in proprietary schools with some cities, such as Chicago, as high as 50%.[4] On the other hand, the Vocational Education Act programs administered through HEW have rarely gone to proprietary schools. Decision-making was left to state education officials who directed resources to existing public schools and new public regional vocational/technical institutes. In 1967, however, HEW contracted at the national level with business schools and trade and technical schools to provide training in 28 states.[5]

The issue of whether or not to use proprietary schools in manpower/vocational education programs focussed attention in the late 1960's on the activities of these schools. Several studies, including those of Belitsky and O'Neill,[6] advocated greater use of proprietary schools on the grounds that they were more cost-effective and innovative in providing training to the target clienteles of the two manpower/vocational education acts. Other studies such as by Sam Harris Associates[7] showed that public programs were more cost effective for MDTA training. The adequacy of research to date to answer such questions will be reviewed in the following section.

Increased Emphasis on Vocational Education

While the MDTA and Vocational Education initiatives were being made, students and administrators in higher education institutions were also coming to feel that more vocational education should be provided. Pressures for a vocational or career education focus in the schools came from a variety of sources: again, the concern in the Labor Department for raising the level of technical competence in the labor force and from dissatisfaction of students about the falling value of a traditional college degree. As more and more high school graduates went on to college in general education, the labor market demand for college students failed to keep up with the supply. At the same time, high school graduates and college drop-outs were ill-prepared to take the technical jobs which were available.

The failure of the education system to meet the needs of the labor market at least in the short term was of concern to both students and manpower administrators. The Bureau of Labor Statistics in 1969 projected that only 20% of jobs would require a college degree in the 1980's and yet public systems continued to expand with traditional programs.[8] Finally, college graduates began to have trouble finding jobs with a liberal arts degree and entering students began shifting to professional and vocational programs.

The focus in the past on general education had been sustained by an attitude of parents and educators that all students should aspire to a general education college degree. Curricula were designed for the 20 - 25% of high school students who would eventually graduate from college, and few good alternatives to the college preparatory program were provided for others in high school. Community colleges were initially designed to transfer students into colleges, although most students did not complete a degree. The college degree was seen as the assurance to students and parents of a successful life and few wanted to limit their horizons to terminal vocational programs at the associate level. But the current realities of the job market seem to be a surplus in supply of college drop-outs or graduates from liberal arts programs and a shortage of middle-level technical, clerical and paraprofessional workers. Whether such an imbalance continues into the future and whether vocational education is the answer to labor market needs are both open to question.

To the extent that students and policymakers have come to see vocational education as an alternative to traditional college education, proprietary schools are becoming legitimate postsecondary options. Although community colleges themselves are moving into vocational and away from transfer subject areas, there is also concern at the national level that the resources of existing proprietary schools be utilized effectively before additional public money goes into expanding public institutions. The Higher Education Act Amendments of 1972 clearly state that proprietary schools which are accredited by an OE-recognized accrediting agency are elegible to be used by students under the Basic Opportunity Grants, NDSL, College Work Study, and other loan or grant systems. The major proprietary schools to be affected are accredited by the Association of Business Colleges and Schools, the National Association of Trade and Technical Schools, and the Cosmetology Accrediting Commission. These schools, however, represent only a fraction (about 1/10) of the total number of proprietary vocational schools and are possibly the best in their fields.

It was also determined in the Higher Education Amendments of 1972 that proprietary schools be included in statewide planning commissions (the 1202 commissions) which have been funded for the first time this year. Here again only accredited proprietary schools are to be included.

The development of federal and state policies in vocational education will be discussed in greater detail on pages I-16-32.

The Need for Greater Diversity and the Financial Squeeze in Higher Education -- Can Private Enterprise Do a Better Job?

The late 1960's and early 1970's were a period of public disillusionment in higher education and an increasing unwillingness on the part of taxpayers to support unchecked growth of public systems at the postsecondary level. The disillusionment came from a variety of sources -- the fact that college graduates were no longer assured good jobs, the reaction to student protests over Vietnam, and a feeling that institutions were not meeting the variety of needs and interests of students.

The greatest indication of dissatisfaction may be taken as the high drop-out rates (50% or more) from many colleges and universities and community colleges.[9] By and large the problem was analyzed by educators as a lack of diversity and innovativeness in the system. As greater numbers of students entered college, they continued to receive a watereddown version of the education offered at the elite colleges and universities -- an education dominated by discipline-oriented faculty often more interested in their own professional advancement than in teaching and more in narrow, academic issues than in broader social issues or vocational fields relevant to the new student clienteles. The community colleges with faculty straight out of discipline-oriented graduate programs concentrated on offering transfer options rather than setting alternative patterns of their own. Many of the new students were not interested in and could not cope with the academically-oriented work offered to them and sooner or later dropped out of college.

In the early 70's, educators and policymakers began to call for greater diversity in types of institutions and greater attempts to meet the needs of various kinds of new students. At the same time, costs were rising and the public was unwilling to continue to support a system which they found lacking.

Arising from this public disillusionment over the performance of public and private non-profit higher education came the suggestion that perhaps private enterprises could do a better job at meeting the needs of students as consumers and could do it at lower cost. Interest was fostered in such alternatives as performance contracting with private firms, voucher plans to give greater choice to the individual student or parent and greater support for proprietary schools.

These initiatives were based on the hypothesis that profit incentives might lead to the same high quality and innovativeness of response in education as in technology-based industries in the private market, and that accountability to a market might keep costs down. The encouragement of private enterprise in education came from the Office of Education in the Johnson Administration as well as from Republican House and Senate members. Gerald Ford in 1970 stated, "I have long been a critic of our nation's public schools because I have never felt that they were achieving even a reasonable degree of their potential. One reason for this failure is lack of competition ... Private trade and technical schools are a natural development in a private enterprise economy which is demanding the personnel needed to fill certain jobs in growth fields and is insisting upon excellence."[10]

Although the experiments in performance contracting were seen as a failure by 1973, interest in the activities of proprietary schools as profit-making institutions remains. The National Institute of Education and the Department of Health, Education and Welfare continue to support research into their activities as an alternative to public and non-profit systems.

Proprietary schools have also benefitted from the current financial squeeze in higher education as a whole. The philosophy which urges a halt in the expansion of public systems and greater utilization of private, non-profit institutions also applies to proprietary schools. The argument has two sides: first, that public programs should not duplicate already existing programs in the private or proprietary sector and second, that students should be supported (rather than institutions) so that they may have maximum choice among alternatives. Thus, Pennsylvania's, New York's, and the proposed Massachusetts' open learning systems incorporate proprietary schools as community resources not to be duplicated by new public programs.[12] The Nixon Administration's emphasis on student vs. institutional aid has also benefitted the accredited proprietary schools.

FTC Hearings and Consumer Protection

Although manpower planners, students and policymakers with a broad national perspective were encouraging vocational programs and alternatives to the liberal arts curriculum, with the resulting attention on the activities of proprietary schools, other groups were resisting the notion of profit-making enterprises in education. State education officials, for example, rarely utilized proprietary schools under the Vocational Education programs.

Another issue arose in 1969 over the failure to achieve accreditation by a profit-making institution, Marjorie Webster Junior College. The school sued the Middle States Association and lost in the court of appeals to arguments by the Association that "these two goals -- that of the profit organization to return a profit on capital and that of an educational organization to overcome the ignorance of students -- are not compatible ..."[13] The issue again arose when the Internal Revenue Service ruled in 1973 that a collegiate regional accrediting agency might lose its tax exempt status if it admitted proprietary schools.

There also developed some concern for whether proprietary schools engage in deceptive and misleading advertising. In 1970, public hearings were begun by the Federal Trade Commission examining misrepresentation by a variety of schools about placement opportunities and accreditation, unfair cancellation and refund policies, and provision of low quality training. In July, 1971, the Washington Post carried several articles citing deceptive practices of schools and in 1972 the FTC published a set of "Guides for Private Vocational and Home Study Schools."[14]

Concern of Proprietary Schools to Maintain their Market Position

The concerns of proprietary schools have also been better articulated in the last few years. Although the Association of Business Colleges and Schools has been in operation many years, the National Association of Trade and Technical Schools was formed only in 1965. The efforts of both of these organizations have been instrumental in the inclusion of the accredited proprietary schools in the Higher Education Amendments of 1972 and other Congressional initiatives. These associations have generally supported the programs of student aid over those of institutional aid or contracting. Only the accredited schools represented in these organizations are covered by the Higher Education Amendments.

In Massachusetts, proprietary schools, both accredited and non-accredited, have in the last year organized partly to protest what they see as the expansion of community colleges and regional vocational/technical institutes into their territories. A number of business schools have closed over the last several years from competition from public programs and the fear is that new public programs in other trade and technical areas and in Boston will force the closing of more proprietary schools unable to compete with low public tuitions.[15]

Both these national and State level organizations focus attention on the interrelationships of proprietary and public programs. At a time when public higher education is under financial constraints, policymakers are also more responsive to the concerns of proprietary schools expressed by these groups and to the notion that they may provide services to students at less cost than new public programs.

The Inadequacy of Past Research to Meet Policy Needs

At a time when major policy issues were being discussed, very little was known about the actual workings of proprietary schools. Estimates of numbers of schools and students are just that and no more; state departments of education do not even maintain comprehensive lists of vocational and avocational schools.

An assessment of the role of proprietary schools in education and training is not possible on the basis of research to date and thus recommendations for policy changes are often grounded in speculation and not fact. Those advocating greater participation of proprietary schools cite the quality of training in the accredited business and trade and technical schools while those wary of profit-making in education cite the FTC findings of deceptive practices.

In the following section, a review of the literature and research to date and the needs for further research are discussed.

Footnotes

1. Fulton, Richard A. , "Proprietary Schools", Encyclopedia of Educational Research, 4th Edition, (MacMillan Company, New York, 1969) p. 1026.

2. For general characteristics of proprietary schools, see: Belitsky, A. Harvey, Private Vocational Schools and Their Students (Schenkman Publishing Co., Cambridge, Mass., 1969)

3. Fulton, op. cit. and Nolfi, G. and V. Nelson.

4. Belitsky, op. cit. p. 135.

5. Fulton, Richard A. and Eugene W. "Evaluation of Programs at Proprietary Business Schools", National Business Education Yearbook, No. 7, 1969, pp. 103-118.

6. Belitsky, op. cit. and O'Neill, Dave M., The Federal Government and Manpower (American Enterprise Institute for Public Policy Research, Washington, D.C., 1973).

7. Sam Harris Associates, "A Comparative Study of MDTA Institutional Training in Community Colleges , Public Vocational Schools and Private Institutions", Washington, D.C., May 15, 1973.

8. College Educated Workers, 1968-80 (BLS Bulletin 1676), a study of supply and demand for college graduates and Occupational Manpower and Training Needs (BLS Bulletin 1701), showing the number of total annual openings over the 1968-80 period and available data on the number of workers currently being trained.

9. Report on Higher Education, U.S. Dept of HEW, June 1971.

10. Ford, Gerald R., address to National Association of Trade and Technical Schools, June 19, 1970, (Congressional Record, August 12, 1970, Vol. 116, No. 139)

11. Elliott, Lloyd H. "Education at a Profit?" (Congressional Record, Aug 12, 1970, Vol. 116, No. 27)

12. Nolfi, George and V. Nelson "Relationships to the Open Learning Network of Non-Degree-Granting Providers of Postsecondary Level Instructional Services", Report to Governor's Task Force on the Open University, (Boston, Mass., January 1974).

13. Wilms, Wellford, "A New Look at Proprietary Schools", Change Summer 1973, p. 6.

14. "Guides for Private Vocational and Home Study Schools", Federal Trade Commission, (Washington, D.C. May 16, 1972).

15. Nolfi, G. and V. Nelson, Strengthening the Alternative Postsecondary Education System: Contuing & Part-Time Study in Massachusetts, (University Consultants, Inc., Cambridge, 1973.

I.B. A LITERATURE REVIEW: RESEARCH QUESTIONS AND POLICY NEEDS

To the extent that federal and state programs have developed which affect proprietary institutions, the information and research needs of government policymakers have increased over the last decade. As federal funds have gone into expanding programs of manpower and vocational training under the MDTA and under Vocational Education Acts, and student assistance loans and grants under the Higher Education Acts and as state funds have gone into developing extensive public higher educational systems, questions have been raised of the proper consideration and treatment of proprietary schools. In terms of resource allocation: should they be contracted with for specific programs, should their students be supported by government grants or loans, should attempts be made not to duplicate their services in new public offerings? In terms of competency assessments: should proprietary schools grant degrees, should course work be creditable in degree-granting institutions, how should proprietary schools be accredited? Finally, in a time of increased spending in the area of vocational education, is strict regulation required on the activities of such profit-making institutions?

Public support of proprietary schools or students could not be justified until more was known about their offerings and the value of training. Thus, several major questions have been raised about the sector: what do proprietary institutions do, in what subjects, with what students, and how well? Are they more or less cost-effective than public programs or do costs reflect differences in educational goals, quality, selective admissions criteria, etc.? Who pays, and who benefits from their operation?

These policy concerns stimulated a variety of analyses of the activities of proprietary institutions: ranging from the investigative articles of the *Washington Post* in citing deceptive advertising practices (at the time of this report the *Boston Globe* is also investigating certain proprietary schools), through speeches, position papers, and testimony in public hearings, and finally to surveys and research projects. The general positions of various groups have been alluded to in the previous section.

One view would have it that proprietary schools, spurred by market competition, operate efficiently and innovatively to meet the changing and diverse training needs of students. As such, they provide a valuable service to a worker investing in his skills and to the economy in providing trained manpower. Public and non-profit schools would, by contrast, be wasteful and unresponsive in their bureaucratic functioning.

Another view would have it that proprietary schools exist to a large extent by attracting naive and impressionable young people and by promising jobs they cannot possibly get. The owners reap profits from the high price, low quality programs, but students fail to achieve their goals.

The purpose of this section is to lay out the results of several major research studies which have been conducted or are in progress shedding light on various aspects of the operations of proprietary schools and their relationships to students, the labor market, the public schools, etc. Finally, questions still remaining and issues unresolved will be identified.

Major Studies

The major research studies are the following:

In 1969, a labor economist, A. Harvey Belitsky, published a study entitled *Private Vocational Schools and Their Students: Limited Objectives, Unlimited Opportunities.*[1] The research was focussed mainly around an institutional questionnaire sent in 1967 to trade and technical schools and most of the analyses concerned only 5% of those schools, the members of NATTS (National Association of Trade and Technical Schools). Belitsky recommended the flexibility of operation and organization of proprietary schools as being appropriate to meeting the needs of the disadvantaged student now supported by federal programs. Examples are cited of flexible admissions criteria, programs offered at night and in convenient locations, changes in curriculum to meet employer needs, and special adaptations of short-term, individualized courses to motivate the non-academic or disadvantaged student.

Belitsky explained this flexibility of proprietary schools as a necessity to survive in the marketplace: revenue is fees directly from the client, the student, and in order to continue to attract clients schools must provide suitable training in a changing job market. The "quest for profits serves to stimulate continuous changes in operation and instruction." The owner has discretion to implement changes quickly and without bureaucratic roadblocks, and finances new programs out of retained earnings.

Belitsky explained the continued survival of proprietary schools in the face of expanding lower-priced public programs by both their training in fields not provided in public schools and by offering superior courses in the same fields. Proprietary schools fill the gaps between public education and training programs, industry training, and union apprenticeships.

Belitsky's study has been used as the primary reference on proprietary schools. However, much of his case for proprietary schools is suggestive and has not been researched in depth. The study is also based on an analysis of presumably the best schools, those accredited by NATTS, and should not be generalized across all schools. The performance of proprietary schools is not proven; in fact, the evidence presented from the Specialty Oriented Student Research Program at University of Iowa indicates as many as 40% of graduates six years out of proprietary schools have earnings at the same or lower levels as before their training.

In June 1972, a study was released by Edward Erickson and others at ICF, Inc. as prepared for the Assistant Secretary for Planning and Evaluation at HEW: *Proprietary Business Schools and Community Colleges: Resource Allocation, Student Needs, and Federal Policies.*[2] This study was based on interviews at 20 private business schools and two community colleges and because the study was conducted during a short period of time, the conclusions are suggested as tentative. In addition to time constraints, the interviewing was limited to proprietary schools which were "well established, with excellent reputations, and sound management."

At least in the business fields, Erickson, et al. found community colleges to be damaging competition in the short, but not in the long term. They, too, found that the profit motive stimulates continuous changes in operation and instruction at proprietary schools while community colleges spread resources too thin to develop "sharply-focussed and effective" curriculum. Community colleges are under pressure "to be all things good to all people" and suffer from "conflicting and diverse missions." Community colleges also have an open door admissions policy and many of their students have not yet made up their minds about what they want to study. Proprietary students choose proprietary schools over public programs for 1) their superior placement record, 2) job-specific training, and 3) a shorter time to completion. Figures were cited for graduates of 100 accredited business and technical programs: 59% would enroll in the school if they were facing the choice again, 81% are in training-related jobs and 70% are very satisfied or satisfied with their current jobs.

In spite of findings favorable to proprietary schools, this study prescribed no major federal initiatives beyond experimental joint ventures of proprietary schools with other postsecondary institutions and with private industry and increased use of proprietary schools under the MDTA programs. Admitting the limited nature of the study, further research analysis was recommended on safeguards for quality control, the effects of Federal policies on proprietary and public education, and comparisons of private and public programs.

In November of 1972, a study by Jean Wolman and others at the American Institutes for Research in Behavioral Sciences was released for the Office of Program Planning and Evaluation of the Office of Education: A Comparative Study of Proprietary and Non-Proprietary Vocational Training Programs.[5] The study was to address differences in proprietary and non-proprietary schools and students, and in the employment gains of their graduates. Four occupational fields were chosen where comparable courses are given in proprietary and non-proprietary schools: office, computer, health, and technical areas, and four cities were chosen: Atlanta, Chicago, Rochester and San Francisco. Surveys were conducted of institutions, students, and alumni.

The amount of data gathered was great and there was the potential for good analysis. But, a major problem in all of the study's comparisons of schools, students and graduates is the combination of private non-profit schools and public schools into one category: non-proprietary. In fact, many non-profit schools in non-health areas were started as proprietary schools and are more likely to operate like proprietary schools than like public schools. Although directors of non-profit schools may not benefit directly from increased revenues, the schools depend on student revenues and still must cater to the market of students in ways that state-subsidized schools do not. Both proprietary and non-profit schools are members of the business (AICS) and trade and technical (NATTS) associations.

With this restriction in mind, the conclusions of the study were: 1) Programs in both proprietary and non-proprietary schools are considered effective in providing students with marketable skills, 2) The four occupational areas differ markedly in cost-benefit of training, clientele, and types of programs offered, 3) Non-proprietary school graduates gain more from training than proprietary school graduates (but this is explained by the fact that non-proprietary students were earning less than proprietary students before training and about the same after training), 4) Accredited and chain schools are no more effective in placing graduates than non-accredited or non-chain schools, and 5) Proprietary and non-proprietary schools differ in operations but attract similar kinds of students.

Resulting recommendations are that both proprietary and non-proprietary schools be examined for evidence of benefits and costs of training before federal funds are allocated; "no institution should be discriminated against on the basis of ownership status." In addition, regulation of standards in advertising, recruiting, refunding, and other policies should be strict.

In 1973, the first of two stages of a study by Wellford Wilms at the Berkeley Center for Research and Development in Higher Education was released entitled Profitmaking and Education.[4] The first stage was an analysis of students in 50 randomly selected proprietary schools and public community colleges or technical institutes in San Francisco, Boston, Chicago, and Miami. Students were selected in programs to train accountants, computer programmers, dental assistants, electronic technicians, secretaries, and cosmetologists. The second stage now underway is to assess the effectiveness of proprietary vs. public schools by following the success of graduates in the labor market, while controlling for differences between the two groups in socioeconomic background and ability.

Wilms found that proprietary school students as compared to public school students are: more likely to be high school drop-outs, from a general or vocational program rather than a college preparatory program in high school, of minority race, and have lower verbal skills. Socioeconomic backgrounds and motivation for job achievement are similar. In spite of differences in academic background and skills, students in proprietary and public programs expect the same employment gains from training.

A number of other research efforts have been undertaken which shed light on various aspects of proprietary schools: David O'Neill (1970) found that proprietary schools were more cost-effective than in-house Navy training programs for electronic technicians.[5] He recommends greater experimentation by the Navy in contracting out training programs from private schools. In 1973, Sam Harris Associates, Ltd. compared the cost-effectiveness of MDTA programs in public community colleges, public vocational schools, and proprietary schools in placing graduates in higher wage jobs.[6] They found community colleges to be the most cost-effective for MDTA contracting; but attributed this to the fact that the public colleges and schools absorb much of the overhead costs of the programs while proprietary schools charge full cost including overhead. Richard Freeman (1973) used data on 45-49 year old men to compare the effects of formal schooling with those of proprietary school training on earnings.[7] He found that the private rates of return from the two types of schools are roughly equal; but, since the public contributes less support to proprietary schools or students, the rate of return to society is higher for proprietary school training than formal schooling. The comparison in effect, however, is between academic training and vocational training in a business college or technical school, since most formal schooling programs were academic and not vocational in nature at the time these men were in school. The more relevant comparison yet to be made is between vocational programs in public community colleges or institutes vs. those in proprietary schools.

Contributions of Research and Issues Unresolved

The research to date calls attention to the activities of proprietary schools, cites characteristics of their behavior, and documents their legitimacy in certain fields of training in adding to a students's earning capacity. This research, however, only begins to address some of the fundamental questions about the operations of proprietary schools.

Questions still to be addressed are:

1) What is the role of proprietary schools in vocational and avocational training? While some studies focussed on the best business or trade schools and others on comparisons of particular occupational programs in the proprietary and public sector, none have documented the total scope and variety of proprietary schools in a given geographic service area or the relationships of the offerings of public programs, industry training, or the unions to the mix of training fields of proprietary schools which continue to operate.

A more detailed analysis is required of the proprietary school sector as a whole including accredited and non-accredited, vocational and avocational schools. Why do proprietary schools operate in some fields and not in others? What is the relationship of what they offer to the programs of public and non-profit schools? Do gaps or costly duplication of programs develop? What happens when a new public program opens? How have the proprietary, non-profit, and public sectors been affected by the growth in demand for vocational training and for avocational, leisure courses? by changes in industrial composition? by changes in licensing criteria? by increased accessibility of students to federal grants and loans?

2) What is the nature of the process of proprietary training? Are there differences in training among types of schools -- are there only differences in scheduling as cited in several studies or are there more fundamental differences in training techniques? What kinds of innovations in programs do public, non-profit, and proprietary schools make?

3) How do proprietary schools operate as business enterprises? How do they allocate funds? Do their programs cost less than public or non-profit programs, and if so, why? What do differences in spending patterns reflect, differences in quality, in goals, or in efficiency of operation? What is the significance of the fact that most proprietary schools are small and specialized, while public schools are large and comprehensive? Although previous research suggests significant differences in operations by type of school, no direct cost and revenue comparisons have yet been made.

4) What kind of person goes to a proprietary school, for what reasons, and does he benefit from the programs? Benefits seem to vary by type of training and thus it is important to consider a wider range of schools in further research. Benefits in office or technical programs which have been analyzed may not be matched by real estate, flight, or truck driving schools, for example. Why does a student choose a public program? How well-informed are students about their choices?

5) How do employers value proprietary school training? as compared to public or non-profit school training? Although the placement functions of proprietary schools have been cited as attractive to potential students, the exact nature of employer/school relationships have not been traced. In what ways do proprietary and public school directors keep in touch with employers and their needs and how do these needs affect programs? How do employers feel about proprietary vs. non-profit or public training?

6) What is the policy context in which proprietary schools operate? What kinds of programs - academic, vocational, avocational - should be given public support? What kinds of criteria are appropriate in making decisions about institutional or student support? How much should be left to the private market and how much to professional judgement?

While such issues have been raised in past research, the extent to which policy changes are realistic has not been discussed. What recommendations are feasible in the light of existing patterns of enrollment, the educational policy-making process, trends in such educational innovations as open learning, and federal and state budget priorities?

Directions for Research

In order to answer the above questions, major departures have to be made from past research: a) all types of proprietary schools must be included in the analysis, b) specific relationships of these schools to public school, employer-based and union training must be traced, c) employers' views must be sought, d) data on finances and operating patterns must be collected and analyzed, e) direct comparisons must be made in the training process across the three categories of proprietary, non-profit, and public schools, and f) the public policy context must be explicitly considered in all recommendations.

FOOTNOTES

1. Belitsky, A. Harvey, *Private Vocational Schools and Their Students* (Schenkman Publishing Co., Cambridge, Mass., 1969).

2. Erickson, Edward W., *Proprietary Business Schools and Community Colleges: Resource Allocation, Student Needs, and Federal Policies* (ICF Incorporated, Washington, D.C., June 10, 1972).

3. Wolman, Jean M., *A Comparative Study of Proprietary and Non-Proprietary Vocational Training Programs*, Volume I, (Office of Program Planning and Evaluation, Washington, D.C., Nov. 1972).

4. Wilms, Wellford W., *Profitmaking and Education*, (Center for Research and Development in Higher Education, University of California, Berkeley, California, July 27, 1973).

5. O'Neill, David M., *Meeting the Navy's Needs for Technically-Trained Personnel; Alternative Procurement Strategies*, (Center for Naval Analyses, November 13, 1970).

6. Sam Harris Associates, "A Comparative Study of MDTA Institutional Training in Community Colleges, Public Vocational Schools and Private Institutions", Washington, D.C., May 15, 1973.

7. Freeman, Richard B., *Occupational Training In Proprietary Schools and Technical Institutes*, (Harvard University, August 1973).

I.C. PROPRIETARY SCHOOLS AND THE VOCATIONAL EDUCATION SYSTEM

The purpose of this section is to view the activities and role of proprietary institutions as a part of a wider system of vocational education, particularly in Massachusetts. A mix of public, private non-profit and profitmaking institutions meet the training needs of students with historical patterns of subsidies and incentives in some fields and not in others. It is now a time when federal and state government policies of subsidization of public institutions and regulation of others is open to question. Options are considered such as: should students at proprietary schools be eligible for general student aid programs, should training programs contract with proprietary schools as well as public agencies and schools for services, should public schools teach courses already offered at proprietary schools? To some extent these questions can be viewed from the larger perspective of what should be the role of private enterprise in education.

New policies will be determined by the public objectives for the operation of the vocational education system, and the extent to which the system fails to meet those objectives and government intervention is needed to influence the system. Policies will be designed on the basis of specific tools of policy available, and the way in which students and various types of institutions will respond to such initiatives. Finally, agencies will be interpreting the public interest from different perspectives and may in practice diverge in their policies toward institutions.

In this section, the objectives of public policy in vocational education in the past are outlined and alternative strategies considered for the future. No specific recommendations will be made, however, since their formulation will depend on the analysis of proprietary schools and other public or non-profit schools stemming from the research of Stage II.

THE VOCATIONAL EDUCATION SYSTEM

Today people invest many years and substantial resources in formal education and training to prepare for employment. In between the general education received by all who attend school until the legal age minimum of 16 and the specific training which employees go through on the job is a wide range of education and training which will be valuable in the performance of specific jobs. To the extent that employers' requirements for prior training and evidence of skills increased and/or workers in a tight labor market perceived competitive advantages from having training, then the demand for training has increased over time. After high school most people now go on to college or some other form of training before taking a job and often will go back to school in their late twenties or thirties to retool or upgrade skills.

Demand for specific forms of education and training will vary with the job payoff in the relevant occuaptions and the costs incurred while training: costs of both time off the job market and in direct costs of training. In theory a potential worker will consider the benefits of training on his job prospects (income, stability, promotion, etc.) and the costs of training (foregone earnings, tuition); and given constraints of availability of funds, personal preferences for certain jobs, and uncertainty, will choose to undertake one form of training or another. If the returns to training are low he may choose to invest instead in physical capital, or not at all.

The vocational education system is a particularly important sector of the economy: on the one hand it provides opportunities for investment in skills and affects the careers of many individuals and on the other hand it affects the ability of the labor market to adjust to changing skill requirements. If the training market were functioning perfectly, then shifts in the job market such as increasing skill requirements in certain occupations or shortages of workers in other occupations would raise wages in those occupations. This would raise the benefits of training in those skills and if such training is provided at reasonable costs, then enough workers will seek training to alleviate the job shortages in the economy.

A wide variety of institutions provide education which is valuable on the job: public and private colleges and universities, community colleges, proprietary and non-profit schools, the military, and company schools. The market is determined by the training requirements of the job market, the perceptions of workers for a competitive advantage in one form of training or another, relationships to other goals of each type of institution, and historical development of patterns of government support, professional control, etc.

Vocational education typically refers to a segment of this market of job-related education which is below the bachelor's degree level. Although college or graduate general education may be training for professional or managerial jobs and a requirement for hiring, few educators think of this as vocational. For the purposes of this discussion, vocational education will refer to job-related courses for beyond the high school diploma level, but less than the the college degree level. Such training leads to trade, clerical, and technical jobs and it is in these subprofessional areas that proprietary schools have typically operated. Vocational education is offered extensively in secondary schools, but these programs are generally at lower skill levels and will not be directly compared to those offered for the high school graduate.

Vocational education has always been secondary to general education in the public and non-profit institutions of education and until the 1960's had received little in the way of government support or intervention. Professional educators at elementary, secondary, and college levels have generally preferred to see students taught academic skills and a sense of culture, citizenship and scholarship rather than job skills. Although high schools for many years have had vocational programs they have been characterized in reports such as Work in America as low quality and designed for the low achiever.[1] Only in the last 10-15 years have community colleges and public technical institutes been developed with post-high school vocational programs.

Thus, vocational education in the past in public and private non-profit educational institutions has been limited. There was clearly a need for classroom training, however, since the private sector responded with a variety of programs. In 1970, 50% of white men 45-49 indicated having taken formal occupational training outside of college and in the following settings: proprietary schools, company schools, union apprenticeships, and in the military.[2]

	% with training	Average months of training
Total with Occupational Training Outside Colleges or Community Colleges	50%*	19.6
Business College/Technical Institute	17%	17.6
Company Schools (6 weeks or more)	10%	9.1
Voc/Tech Apprenticeship	19%	16.8
General Courses	10%	13.0
Armed Forces	17%	14.1

*The total number with some training is less than the sum of the column because many go through more than one program.

In order to place current policy questions in perspective it is helpful to review the broad outlines of the development of education and training institutions in this country. In the early 1800's most training still took place in the home or in apprenticeships: the elementary schools and colleges alike were oriented to academic work. By the middle of the century a training market was being formed to meet the skill needs of commercial manufacturing development: at the college level the federal government was beginning to support education in the land-grant universities to improve agricultural production and mechanics. However, Grant Venn has said, "The colleges blazed the vocational trail, but as they advanced the level of their work into highly skilled and professional areas, they left a vacuum in the field of middle-level vocational preparation."[3] Into this vacuum came small proprietary schools with programs particularly in business and clerical fields. By 1897, 71,000 business (secretarial, accounting) students were enrolled in proprietary schools compared to 5,800 in colleges and universities.[4] In the following 20-30 years proprietary schools in trade and technical fields began to develop as well, while educators debated but took little action to support vocational education in the public schools.

Until 10 years ago this pattern was reinforced: government money was invested heavily in general and professional education at the elementary, secondary, college and graduate level, while vocational training was left largely to the private sector. While much public debate and extensive subsidization was focussed on higher education, the private postsecondary (less than B.A.) vocational education market functioned largely free from any government or public attention, regulation, or financial support. Vocational Rehabilitation funds and G.I. Bill payments went to proprietary school students, but no direct financial support was given to either proprietary school or industry programs. By and large they were left alone: many states had licensing requirements but they were intended to insure sound financial practices rather than to influence the type or quality of vocational education offered. As a result, students in proprietary schools have been subsidized to far less a degree than students in academic or professional programs in colleges and universities.

In the past 10 years, however, federal and state governments have significantly increased their participation and intervention in the vocational education market. Interest in the functioning of this market comes from two major sources: manpower planners and training directors of programs for the unemployed and disadvantaged and education professionals at the secondary and postsecondary level. Federal and state support for vocational education was primarily directed towards the development and expansion of programs in the public schools and colleges, however, this policy of direct categorical support to public institutions has been questioned.

In the following pages, the development of specific federal and Massachusetts policies in vocational education will be discussed. By examining specific acts and stated purposes, the objectives for and means by which policy-makers at both levels sought to influence the system will be revealed. Finally, policy for vocational education and proprietary schools will be placed in the context of increasing disillusionment with education in general and the consideration of alternatives to public systems.

PUBLIC POLICY IN VOCATIONAL EDUCATION

Federal and state governments have the following broadly-defined interests in the performance of the vocational education system: that opportunities by provided for youth and adults to obtain skills which will bring them increased earnings and job security; that equality of opportunity for training be provided to all groups in the population-by income and sex; that manpower needs be met for trained workers (contribute to economic development, alleviate unemployment, aid disadvantaged groups to participate in the labor market); that indirectly training of workers will contribute to a more stable citizenry. However, no direct (but some indirect) contributions are expected to cultural or academic development.

Government programs have developed in particular over the last ten years to subsidize and provide a set of incentives in the system in response to perceived failures in the system as it was developed. Federal and Massachusetts initiatives will be discussed with a view to discerning public intent. They are divided into two sections, 1) vocational education and 2) manpower programs, since jurisdiction over policies comes mainly from two historically distinctive and at times conflicting agencies: HEW and the Department of Labor at the Federal level and those agencies which fall within the jurisdiction of the Office of Educational Affairs and the Office of Manpower Affairs at the State level. One group has primarily the perspective of meeting the educational needs of students and is dominated by professional educators, the other has primarily the perspective of increasing skills of workers for employment and meeting the training needs of the economy.

Federal Initiatives in Vocational Education

Federal intervention in vocational education over the last decade has primarily been in the nature of stimulating general expansion of programs in the public schools, institutes, and community colleges and expansion of programs in specific fields such as health and science. Very little regard was given to supporting or providing incentives to private, non-profit or proprietary schools. Vocational education benefitted from general public satisfaction and policy of support for growth of education programs as a whole. Over the last few years policy initiatives have related to other issues: equality of opportunity and innovation and reform. In this context, alternatives to continued support of public systems are considered, along with possible roles for proprietary schools.

1917-1963

Following 20-30 years of debate among educators about the proper role of vocational education in secondary school, the Smith-Hughes Act was passed in 1917 for grants to states to support vocational education below the college level. Funds were to go to salaries and training of teachers of agricultural, trade, home economics, and industrial subjects. In 1946, the George-Barden Act was passed for support of agricultural education. Funds were given out as matching grants to states which contributed their own share and could be used at their own discretion for administration, guidance, and counselling as well as salaries of teachers. In 1944, the G.I. Bill of Rights was passed with education and training benefits which would be used at accredited colleges and universities and at V.A. - approved proprietary schools. In 1956 a Health Amendment Act to George-Barden provided funds for training of nurses, technicians, and supervisors. In reaction to Sputnik, the National Defense Education Act was passed in 1958 to improve the teaching of science, mathematics and languages at all grade levels.[5]

1963-1974

Although several acts had been passed which supported vocational education, the level of federal funding amounted to only $55 million (not including the G.I. Bill). Following recommendations by a National Advisory Council on Vocational Education named by President Kennedy, a major expansion of vocational education was encouraged by the passage of the Vocational Act of 1963. Programs were funded in 1965 and federal spending rose to $157 million. By 1973 spending directed to vocational education explicitly has risen to $606 million.[6]

The Vocational Education Act of 1963 was a major initiative with intent to "modernize and redirect the entire vocational system, put resources within reach of all communities, and offer training for job entry or career advancement in virtually every occupation below the professional or 4-year degree level."[7] Over the following years legislation provided funds for existing programs, as well as for construction and expansion of area vocational schools, but left discretion to the states for developing facilities, curriculum, research and training.

Federal funding was designed to stimulate state spending in vocational education, not to finance entire programs. In 1969 the federal contribution to vocational education was about 11% of the total federal-state-local spending. The commitment to vocational education had some visible signs of success: from 1965 to 1969 the number of regional vocational technical schools increased from 405 to 1,303 total enrollments from 5,430,611 to 7,979,366 with postsecondary enrollments from 207,201 to 706,085.[8]

In 1968 Amendments to the Act focussed funding more specifically on postsecondary programs, work study, adults, and persons with special needs ("persons who had completed or left high school, persons in the labor market who needed training or retraining to achieve job stability or advancement, and the handicapped and disadvantaged").[9] State plans for use of resources were also required.

Although states could technically contract with non-public institutions under the Act, few did. In 1969 only 29 of 18,492 programs were under contract in private schools or community agencies.[10] In the 1968 Amendments specific reference was made to the discretion of state boards of education to contract for training in accredited private trade schools, provided that there are no state laws prohibiting such contracting. One deterrent to utilization of proprietary schools, however, has been that while federal and state funds might be used for contracting with proprietary schools, they would not be matched by local funds. Total funds available would thus be less if proprietary schools were used. Several grant and loan programs were all also made available to students at accredited proprietary schools.

Over the last few years, the Nixon administration has pushed for a changing role of the federal government in education. The 1975 Budget claims that major responsibility for education should rest with the states, while federal policies should be focussed on 1) equalizing educational opportunity through loans and grants and 2) stimulating reform and innovation.[11] In addition the budget proposes consolidation of funding to states to provide greater flexibility at the state policy level. For example, much of the funding which has been allocated directly to secondary, higher, or adult vocational education would be consolidated into one vocational education grant to be allocated among levels by each state individually.

The Higher Education Amendments (to Act of 1965) began an important redirection of resources away from direct institutional aid and into student grants and loans. The Amendments also redefined "postsecondary" education to include a wider range of activities than "higher" education. In particular, accredited proprietary school students are now eligible for the major federal grant and loan programs and proprietary school representatives must be included on statewide planning commissions. The rationale behind the formation of such commissions is to some extent to plan and coordinate the provision of public, private and proprietary postsecondary education.[12] These commissions will be funded for the first time this year.

Finally, vocational education as a whole has been given a major boost by a large-scale attempt to encourage career education (as it is now called) in the schools. Although some schools, particularly elementary and secondary schools, have not been very receptive to new programs, the federal government has been trying to encourage greater exposure of children to career choices they will be making later in their lives and to provide them with skills so that they can find a decent job at whatever level they exit (i.e., a career ladder).

The 1975 Budget estimates the following changes in allocation of federal resources:[13]

Vocational Education	1973	Estimated 1975
Elementary/secondary	355 million	194 million
Higher	160	72
Adult and continuing	91	46
Consolidated voc. ed. funds	-	382
	$606 million	$694 million

In addition vocational students at the postsecondary level have access to a wide range of student aid programs.

	1973	Estimated 1975
Basic Opportunity Grants	-	488 million
Workstudy, supplemental	542 million	510
Guaranteed student loan	206	314
Direct student loan	287	298
Student grants (social security)	638	856
Other sources of support are:		
Veterans readjustment	2,016	2,141
Health manpower (NIH)	604	563

More detailed discussion of current policy debate and Administration initiatives will be presented in the following section.

Federal Manpower Initiatives

Another stimulus for vocational education in the last decade came from the federal support of manpower training programs. By and large the intent of these programs was to provide training opportunites to disadvantaged groups. The first major initiative was the Manpower Development and Training Act of 1962, initially to alleviate skill obsolescence caused by automation. In a short time the program shifted focus to upgrading skills of the unemployed with little work experience and other manpower programs followed (Neighborhood Youth Corps, Operation Mainstream, Public Service Careers, Concentrated Employment Program, JOBS, Work Incentive Program, and Job Corps). These programs were distinguished from education programs by: 1) operating outside the normal educational process, 2) skill training for non-professional jobs, 3) providing services for less than one year and 4) targeting on disadvantaged groups.[14] The Department of Labor has not had sole jurisdiction over these programs: MDTA was to fall under HEW and Labor control and WIN was administered from HEW, for example. In addition, are vocational rehabilitation programs under HEW (since 1920) and the Veterans Administration. In December 1973, the Comprehensive Employment and Training Act (CETA) was passed to replace categorical grants under MDTA and others with flexible grants to state and local governments (revenue charing).

Manpower services have been divided into: work support, on-the-job training, institutional training, rehabilitation, and other labor market services and direction. Institutional training expenditures and man-years for 1973 and estimated 1975 are (these figures may be altered as states use discretion given under Comprehensive and Training Act):

	outlays (millions of dollars)		new enrollees (thousands)	
	1973	est. 1975	1973	est. 1975
Comprehensive Manpower Assistance	598	633	204	338
WIN	71	50	101	32
Social services (Welfare)	58	61	600	550
Other	55	41	49	38

In addition, some training services are covered under the two vocational rehabilitation programs:

HEW	636	770	503	554
Veterans	88	94	19	18

The focus of manpower programs on the disadvantaged has been a conscious attempt to "avoid displacement of private training efforts which are generally targeted on different groups." The judgement was made that "persons with severe handicaps are least likely to be able to improve their employment experience without assistance." Several categories include those who are 1) school drop-outs, 2) under 22, 3) 45 or over, 4) handicapped, and 5) racial or ethnic minorities.[16]

Under the 1962 MDTA program proprietary schools could be used for training, but in the first year of operation they only constituted 2% of those institutions used. Over the years Congress legislated stronger incentives for contracting with proprietaries and by 1968 they took about 20% of all students.[17] Manpower administrators compared to education administrators had less concern for whether a school was accredited or not, and consequently more concern with the value of training offered in terms of job performance. Thus, proprietary schools were not excluded from consideration. Public schools, community colleges, community agencies, and other profitmaking organizations provided the balance.

Massachusetts Initiatives in Vocational Education

The provision of vocational education and manpower training varies from state to state, depending on training needs in the labor force, size of the disadvantaged population, and goals of the State Department of Education. In 1972, Massachusetts enrolled the following numbers of students by program:[18]

Vocational Education	
Secondary	121,684
Voc/Tech Institutes	7,697
Postsecondary	13,019
Voc/Tech Institutes	1,557
Community Colleges	11,462
Adult	29,096
Manpower Training	37,100

Federal programs in vocational education have provided a stimulus to state and local spending (which constitutes 92% of the total), but manpower training programs are primarily financed by federal funds.

In 1964 (before Voc. Ed. Act funding), total support of vocational education (excluding construction of new facilities) was about $11 million of which 8% was federal, 45% state, and 46% local. In 1972, $129 million was spent, with again an 8% federal contribution,[19] a clear commitment to expanding vocational programs. The state policy of categorical support to vocational programs is predicated on the greater expense of vocational than general education. In order that all communities provide programs, the state must bear some of the cost.

As can be seen in the chart above, the primary enrollments in vocational education have been in secondary school programs in each school system. But, the expansion of programs has been most dramatic in the building of new voc/tech institutes and the incorporation of programs into community colleges. In 1962, there were two regional voc/tech institutes, in 1973, 18 and in 1977, plans call for 35. In 1967, 48% of community college enrollments were in vocational education and in 1972, 62%.[20]

States have been given a fair amount of discretion in use of federal funds for vocational education (this will increase if the consolidated grants program is passed). Some states have emphasized postsecondary level voc. ed. more than Massachusetts (Utah and Arkansas); others have experimented with resource centers without fixed student bodies (New York), for example. In Massachusetts the expansion of vocational education enrollments has occurred primarily in public high schools.[21]

Manpower programs have been operated under federal funding, but now under CETA greater discretion will be given to the state to determine needs and schools or agencies to utilize. Some state training programs are under the Division of Employment Security. The Executive Office of Manpower Affairs has recommended a Technical Assistance Program to aid employers in solving employers' problems of finding additional workers. A staff of employer advisors will help in restructuring jobs, career ladders, and to set up in-plant training programs. Funds are included for training.[22]

The role of proprietary institutions in State vocational education programs has been negligible. The only examples of utilization to date are contracting for the use of facilities of several proprietary cosmetology schools. The State is particularly limited by a Constitutional provision which prohibits aid to private institutions, be they non-profit or profit. However, an Amendment is likely to pass the Legislature for the required third time this year and allow direct grants to both private degree-granting colleges and proprietary schools.

Proprietary schools have played a more important role in manpower programs in Massachusetts. Many schools have taken in MDTA, WIN and other manpower trainees on an individual referral basis, as well as Mass. Rehabilitation, G.I. Bill, and Veterans Rehabilitation-supported students. Several schools have also indicated taking students under the Federally Insured Student Loan (FISL) and National Defense Student Loan (NDSL) programs. No figures are yet available on either numbers of proprietary schools or students who have participated in these programs.[23]

It is not clear what the impact of the expansion of public programs has been on proprietary schools. Historically, data collection nationally or in Massachusetts has been negligible. In Massachusetts there are a number of examples of schools closing in the face of public competition at lower tuition. On the other hand, there are some indications that accredited schools have benefitted from the expansion of education grant and loan programs and manpower programs. Separating the effects of various policies is complicated by the fact that there has been an overall increase in demand for vocational education in the last decade.

CURRENT POLICY CONCERNS AND VOCATIONAL EDUCATION

Vocational education as a whole is being given support by current funding and a philosophical commitment to career education, but it has also been susceptible to a more general public disillusionment with education at all levels. In spite of increased government expenditures in education, there is probably more criticism of the system now than ten years ago. At the higher education level, in particular, concerns about education have fallen into several categories.[24]

1. Education costs have been rising too fast.
2. There is too little diversity and innovation among institutions.
3. The value of a college degree has been falling in the job market.
4. High dropout rates indicate student dissatisfaction with what is offered.
5. Degrees are artificial and often inaccurate measures of competence.
6. Access to education is still limited for low income groups and for adults.
7. There is little coordination among public and private institutions: new public institutions often duplicate facilities of existing private institutions and proprietary schools.

In Massachusetts, a particularly controversial report by the Massachusetts' Advisory Council on Vocational Technical Education has questioned continued expansion of public programs as they have been developed in the past.[25] The report raised the following criticisms of publicly-provided vocational education:

1. Access is still not provided to all groups.
2. There is no evidence that schools operate cost-effectively.
3. Schools do not meet student demand for places.
4. Programs are not responsive to manpower needs.
5. There may be excessive duplication of programs.

The data behind these conclusions was not published in the report. One recommendation is that existing programs in proprietary schools should not be duplicated by public programs and that contracting with proprietary schools should be considered.

The images conveyed in both cases are of a costly, inefficient, inequitable, unresponsive and misdirected system. Admittedly, there is much disagreement about the accuracy of this description. However, many of the Nixon Administration proposals have been in response to precisely these concerns. The focus of policy is no longer to indiscriminately subsidize and expand the public side, but to influence the total system of education in ways which will lead institutions to cut costs, coordinate programs, respond to students' needs, etc. Within policy discussions the fundamental assumption of support of public administration is called into question. It is in this context that proprietary schools are discussed. Perhaps public systems are not the best means to provide education services; perhaps reliance on certain elements of a private market system should be tried.

Federal subsidization of education in public institutions reflected a fundamental belief that education was best offered in the public sector. Not only would costs be minimal for students in tax-supported institutions, but as Senator Kennedy recently said, "Education is too important to be left to private enterprise."[26] This statement indicates an assumption that public schools will serve the needs of students better than schools which are trying to make a profit at the same time.

On the other hand, Lloyd H. Elliott, President of George Washington University, has said "This country's education is bogged down in too much bureaucratic red tape, too much homogeneity ... education for the poor and affluent alike would be spurred along if our society could bring greater competition into the educational mainstream by encouraging profit-making educational ventures."[27]

The Nixon Administration, by redirecting aid to students and including accredited proprietary schools in legislation is taking a stance which reflects a view that more should be left to a market system in education. In the instance of Basic Opportunity Grants, more power is given to the student to choose where he wishes to go. In theory public institutions will have to compete with private institutions for students more than in the past when students had fewer resources and often had no choice but to attend a low-tuition public institution. Hopefully, both public and private institutions will offer a greater diversity of programs and innovate new techniques.

Proprietary schools have a unique place in this debate: while they have been ignored in the past when federal money automatically went into public systems, they are now interesting examples of what private enterprise will do in a sector like education. Proponents of proprietary schools claim that the pressures on schools to attract students who believe they can get a good job after training force them to continually respond to both changes in labor market needs and in student preferences. They are claimed to be more efficient by virtue of having to compete against each other and the highly subsidized public programs. Finally, competition forces them to innovate and reform, find opportunities for new techniques, new student markets, etc. Critics, on the other hand, claim proprietary schools mislead students by deceptive advertising and provide low quality training while attempting to maximize profits for the owners.

ALTERNATIVES TO SUPPORT OF PUBLIC SYSTEMS

In the past, education policy has been dominated by the issues of how public education should expand to meet the needs of the students and the economy. Vocational education in other parts of the market (proprietary schools, company programs, the military) were rarely even considered when planning new programs. School administrators, for example, know little about the activities of proprietary schools in their geographic area, even though they may be offering similar curricula. Under this view of education to be provided by public institutions alone the primary policy tool was direct funding of programs. Activities of proprietary schools were regulated only to the extent that they be required to follow responsible financial practices.

Once the assumption of public support and preoccupation with public institutions comes into question, a new policy perspective becomes possible with a new set of policy alternatives. Since federal money is less committed to support of public institutions than is state money, the more radical use of other policy tools can be considered primarily at the federal level alone, however.

This approach of public policy is to view the vocational education sector in its entirety as a mix of public, non-profit, proprietary, and industry programs. Questions of public policy are then how to influence the development of the sector as a whole; how to structure a set of incentives for each type of institution to provide the desired services and for students to participate in an optimal and equitable manner. A new range of policy tools are then available: funding of students, not institutions; raising tuitions at public institutions, subsidizing tuitions at private institutions, or regulating charges of each type of institution; coordinating activities of all institutions to avoid duplication or encouraging competition in a merket structure; contracting with public, private or proprietary schools; funding experimental projects in each type of school, and others.

Under such a perspective public institutions would no longer be viewed as agents of the public will providing a public good, but rather more appropriately as semi-autonomous bureaucratic organizations which once developed have a direction and force of their own. Even at the State level the notion of public schools being under public control is somewhat in error. In higher education in Massachusetts, a variety of groups contribute to the determination of activities of institutions: a lay board for each segment (Community Colleges, State Colleges, U/Mass, Lowell Tech, and Southeastern Mass. University), a Board of Higher Education, the Executive Office of Educational Affairs, staffs in each segment, and finally, the day-to-day operations of each campus are carried out largely out of public view. Vocational technical institutes are supported by both State and local money, but are primarily responsible to local directives. To the extent that public institutions also take in tuition from students and research and development, and program funds from government agencies and private groups, they are less accountable to a centralized public decision-making process.

In viewing the vocational education sector as a whole, the various types of institutions, including public, could be considered as distinct units, each with a typical organizational structure, a mix of financial sources, a set of goals and objectives, and a pattern of interaction with students and other institutions. For example, within the vocational education system in Massachusetts:

--Decisionmaking and control in public community colleges is quite dispersed across the departments. Since a large share of faculty are tenured, departments can be somewhat free of direct central administrative control. Vocational/technical institutes are operated much more like high schools, with less department cohesiveness. Proprietary schools are small and centrally controlled. Faculty have no tenure and all decisions are made by management.

--Community colleges are primarily financed by State funds, with tuition set at $200 per year for full-time students, vocational/technical institutes are financed by both State and local funds (some federal), while proprietary schools are financed entirely by student tuition and fees (although some students may be receiving support from other agencies).

--Community colleges are comprehensive education institutions meeting needs of transfer and terminal students, youth and adults, academic and vocational students, affluent and disadvantaged students, high achievers and high school dropouts. They set objectives of meeting community service needs, providing general education for good citizenship, and training students in job skills. Public vocational/technical institutes are more heavily focussed on vocational training but also attempt to provide general education components. Proprietary schools, in contrast, are focussed entirely on providing job-related skills for immediate employment.

--Community colleges have policies of trying to accept anyone, either into a full-time or evening program, vocational/technical institutes are selective among high school students who apply (since demand for places is twice current capacity) although they also have adult programs, and proprietary schools are somewhat selective but typically aim for the bottom half of the high school class.

Given these differences in goals, finances, and operations, policies will vary in their impact on institutions. The determination of public policy in the context of a wider mix of institutions requires much more data and sophisticated analysis than in the past. For each type of institution on the supply side, the following must be known:

1. what do schools do?
2. do they operate efficiently?
3. are they responsive to changing needs and do they innovate?
4. what types of students do they select?
5. how do they interact with other institutions?
6. how will they react to various policy changes?

On the student or demand side, it must be known:

1. what do students want and need from vocational education?
2. what can they afford to pay and do costs inhibit enrollments?
3. do students make intelligent choices?
4. how will students react to various policy changes?

The current problem for policymakers is lack of such substantive data on proprietary schools and a comparison with public institutions. The focus of this research is on compiling such data for the State of Massachusetts, although findings will be relevant to other states and national policy as well. Finally, recommendations will be made for public policies.

An example of one particular problem to be analyzed in this process is the following. It is generally believed that one of the major handicaps in the Massachusetts economy is a mismatch of training opportunities to the real needs of employers. As a result industry complains of serious shortages for skilled workers in certain fields.[28] If this is the case, then the vocational education and training system in the State is failing to adapt to the changes in the labor market. (This point is open to question since shortages are in many cases in low wage, factory jobs that young people don't want -- this may reflect a failure of industry to reorganize jobs more than a failure in training opportunities).

A recommended policy of education policymakers has been better planning of programs to meet the needs of local employers. This may involve manpower projections and interviews with employers and a sophisticated and periodically updated analysis will be required as shifts occur in the economy and shortages develop in one area or another. In fact, planning of this sort has been notably unsuccessful in the past.

An alternative approach is to structure a set of incentives in the vocational education and training market so that institutions and students alike will make choices to train in areas where shortages exist. Proprietary schools would already claim to operate in this fashion; they are aware of the job success of each graduating class and adjust their programs accordingly. If they do not provide skills needed in the marketplace, students will not enroll. In fact, some proprietary students have sued for a return of tuition when they cannot get a job after graduation.

It may be possible without interfering with other educational objectives, to structure a set of incentives to public institutions to respond to changes quickly and efficiently. Given past problems with manpower planning attempts, this might be a better policy approach. The data needed to make such a policy decision is of the sort outlined above. How do public and proprietary schools and students succeed or fail in meeting manpower needs and what kinds of incentives should be used to influence their activities?

Footnotes.

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19. Evaluation, op.cit , p. 14-15.

20. Ibid., pp. 25, 81-32.

21. Ibid., p. 29.

22. Massachusetts FY 75 Budget: Summary of Programs and Recommendations (Boston, Mass., January 23, 1974), p. 139.

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26. Senator Edward Kennedy commenting to television press on night of State of the Union address, January 1974.

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II. QUANTITATIVE ANALYSIS OF THE PROPRIETARY MARKET

Two issues are being investigated in this part of the study: the impact of the rapid increase in junior and community colleges and of industrial structure on proprietary and related vocational training in various states; and the effect of proprietary training on the earnings and job position of high school dropouts and other disadvantaged groups.

Analysis of the first issue is utilizing Census of Population and Office of Education data. An index of state 'demand' for vocationally trained workers has been calculated on the basis of the type of industries in each state and national employment of vocationally trained workers by industry. More precisely, the index is defined as:

(1) $\sum_i W_i P_i$ where W_i = percentage of persons in state working in ith industry,

P_i = percentage of persons in the industry with vocational training.

The index differentiates between men and women and five types of training: business or office work, health fields, trades and crafts, technicians and agriculture. Indices for the U.S. and selected states, including Massachusetts, are given in table 1. This table shows that, on the basis of the industrial structure of Massachusetts 28.8% of men and 29.2% of women could be expected to have some vocational training, compared to 29.2 (29.3)% in Michigan and 27.6 (29.5)% in Nebraska. In terms of trade and craft training, Massachusetts' structure demanded less training than Michigan but more than Nebraska. The next research step is to compare these indices with actual numbers of vocationally trained workers and to evaluate the determinants and effects of divergences.

In addition to the indices, data on the number and type (by curriculum and organizational form) of vocational schools in each state have been obtained from Office of Education sources. To examine the question of how increased numbers of public alternatives have affected the proprietary market, the number of proprietary schools (PPOP) will be regressed on several variables, including the total population of the state (SIZE), the indices of demand for vocationally trained workers and the number of 'competitive' public institutions. The results of the calculations should indicate, all else the same, the extent of substitution between public and private institutions - the degree to which many public alternatives reduce the private sector.

Future work with these data is to involve specification of the dimensions of competition and development of a more detailed econometric model of the training market. Information on the number and salary of vocationally trained and college-trained workers by state will be used in this work.

Analysis of the Census and Parnes Tape data on the effect of training on the earnings of workers with different levels of formal education yields a striking result. As table 2 shows, persons with less education 'benefit' more from such training than those with more education. While this is presumably due, in part, to differential selectivity, with the more able less educated and the less able more educated seeking such training, the evidence suggests that vocational training does help high school dropouts advance in the economy. Corroborating Parnes Tape evidence, on young men, aged 18-28, which holds fixed many personal characteristics of workers, has also been obtained. This data is being analyzed further in order to pin down (a) the factors leading individuals to choose vocational training; and (b) the effect of such training on their economic success. Such an analysis requires simultaneous equations or other relatively complex multivariate statistical analysis.

Table 1: Indices of Demand for Vocationally Trained Workers; Selected States: 1970

Predicted % Workers with Less Than 4 Years of College

state	all vocations	business office	health fields	trades & crafts	technicians
Massachusetts					
male	28.8	4.8	0.66	16.0	3.0
female	29.3	13.0	5.0	2.9	0.3
Michigan					
male	29.2	4.2	0.3	17.0	3.7
female	29.3	12.9	5.0	3.3	0.3
Nebraska					
male	27.6	4.2	0.3	13.7	2.6
female	29.5	12.6	5.9	3.5	0.3

Source. Calculated from data in U.S. Census of Population: 1970.

Table 2: Differential Earnings of Vocationally and Non-Vocationally Trained Workers, by Level of Schooling

	Total			Black		
group & yrs. of schooling	with training	without training	ratio	with training	without training	ratio
MALE						
h.s. dropout	8021	6865	1.17	5846	4994	1.17
h.s. graduate	9251	8335	1.11	7064	6594	1.07
1-3 yrs. college	9888	9724	1.02	7712	7304	1.06
4 or more yrs of college	12291	12861	.96	8985	9322	.96
FEMALE						
h.s. dropout	3774	3256	1.16	3192	2320	1.38
h.s. graduate	4613	4073	1.13	4258	3724	1.14
1-3 yrs. college	5175	4647	1.11	5213	4710	1.11
4 or more yrs. of college	6893	7156	.96	6990	7373	.95

Source: U.S. Census of Population: 1970

III.A. INSTITUTIONS INCLUDED IN THE STUDY

A variety of institutions provide vocational education in Massachusetts: propriety schools, independent non-profit schools, vocational/technical institutes and other public schools offering vocational programs, community colleges and other degree-granting institutions. No agency of the state maintains lists of all postsecondary level programs (up to the Associate Degree level) and therefore lists have been compiled. Schools were organized by proprietary, non-profit and public groups, Institutions are separated into 13 geographic service areas as determined by attendance patterns of adult students.*

Proprietary schools offer both vocational and avocational courses. About 260 vocational schools were located in the *Directory of Postsecondary Schools with Occupational Programs 1971 Public and Private*. The rest were found in the Yellow Pages across the state. The avocational schools were located entirely through the Yellow Pages. Proprietary and non-profit avocational schools were grouped together since it was not possible to ascertain ownership from a telephone listing.

In vocational areas, non-profit institutes were identified in the *Directory* and public programs were identified by the Division of Occupational Education. Other degree-granting institutions were identified in Board of Higher Education publications and listed if catalogs showed programs in vocational areas.

Proprietary Schools-Vocational

Independent Non-Profit Schools-Vocational

Vocational Technical Schools And Other Public Postsecondary Schools

Community Colleges

Institutions Other Than Community Colleges Which Grant Associate Degrees

Proprietary & Independent Non-Profit Schools-Avocational

Correspondence Schools

Unclassified Schools

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* Nolfi, G. and V. Nelson, *Strengthening The Alternative Postsecondary Education System: Continuing & Part-Time Study in Massachusetts*

INDEPENDENT NON-PROFIT SCHOOLS - VOCATIONAL (CONT'D.)

TON AREA (Cont'd.)

MALDEN

Malden Hosp. Schl. of Nursing
Hospital Road 02148

Malden Hosp. Schl. of X-Ray Tech.
Hospital Road 02148

MEDFORD

Lawrence Mem. Hosp. Schl. of Nursing
170 Governors Avenue 02155

MILTON

Milton Hosp. Schl. of X-Ray Tech.
92 Highland Street 02186

NEWTON LOWER FALLS

Newton-Wellesley Schl. of Nursing
2014 Washington Street 02154

Newton-Wellesley Schl. of X-Ray Tech.
2014 Washington Street 02154

QUINCY

Quincy City Hosp. Schl. of Nursing
114 Whitwell Street 02169

Quincy City Hosp. Schl. of X-Ray Tech.
114 Whitwell Street 02169

ROXBURY

New England Baptist Hosp. Schl. of Nursing
91 Parker Hill Avenue 02120

SOMERVILLE

Somerville Hosp. Schl. of Nursing
230 Highland Avenue 02143

WALTHAM

Waltham Hosp. Schl. of X-Ray Tech.
Hope Avenue

VOCATIONAL-TECHNICAL SCHOOLS AND OTHER PUBLIC POSTSECONDARY SCHOOLS

SPRINGFIELD AREA

Holyoke Trade High School
325 Pine Street, Holyoke

Roger L. Putnam Vocational-Technical High School
1300 State St., Springfield

PITTSFIELD/NORTH ADAMS AREA

Charles H. McCann Regional Technical Institute
Hodges Crossroad, North Adams 02147

Pittsfield Vocational High School
Valentine Road, Pittsfield 01201

AMHERST/NORTHAMPTON AREA

Smith's Vocational and Agricultural High School
80 Locust Street, Northampton 01060

WORCESTER AREA

Worcester David Hale Fanning Trade High School
24 Chatham Street, Worcester 01608

Worcester Industrial Technical Institute
26 Salisbury Street, Worcester 01605

FITCHBURG/GARDNER AREA

Leominster Vocational High School
Granite Street, Leominster 01453

Montachusett Regional Technical Institute
1050 Westminster Street, Fitchburg 01420

FRAMINGHAM AREA

Assabet Valley Regional Vocational-Technical School
Fitchburg St., Marlboro 01752

South Middlesex Regional Vocational-Technical School
750 Winter Street, Framingham 01701

LYNN/SALEM AREA

Lynn Vocational Technical Institute
80 Neptune Boulevard, Lynn 01902

Northeast Metropolitan Regional Technical Institute
Breakheart Reservation, Wakefield 01880

PROPRIETARY SCHOOLS - VOCATIONAL

SPRINGFIELD AREA

HOLYOKE

Brons Academy of Hairdressing
254 Maple Street 01040

Holyoke Business School
247 Cabot Street 01040

Real Estate Salesmans School
1179 Dwight Street

PALMER

Roberts Aviation
Metropolitan Airport 01049

SOUTH HADLEY

Paul Cassassa Real Estate School
491 Granby Road

SPRINGFIELD

American Vocational Training School, Inc.
721 State Street

Allied Construction Training Corp.
1214 Main Street

Brons Barber School
1696 Main Street 01103

Grogan Real Estate School
1525 Belmont Avenue

La Baron Hairdressing School
182 State Street

Central Travel School
220 Worthington Street

Bartending School of Mixology
121 Lyman Street

SPRINGFIELD (Cont'd)

Carol Russell School of Charm & Modeling
122 Chestnut Street

Mansfield Academy of Beauty Culture
286 Worthington Street

Smith and Wesson Academy
299 Page Boulevard

Sadak and Lukas Real Estate School
349 Worthington Street

Thomas Real Estate School
460 Liberty Street

United Technical Schools
11 Morgan Street 01107

Sidney Baron Real Estate School
682 Sumner Street

WESTFIELD

Barnes Aviation, Inc.
P.O. Box 477

Eastern Atlantic Heavy Equip. Training
RFD East Mountain Road

Vocational Education and Training Corp.

WEST SPRINGFIELD

Business Education Institute
01089

PROPRIETARY SCHOOLS - VOCATIONAL (CONT'D)

PITTSFIELD/NORTH ADAMS AREA

BARRE

Hiller Airport School of Aviation
P.O. Box 518 01005

GREAT BARRINGTON

Berkshire Aviation Enterprises
Great Barrington Airport 01230

AMHERST/NORTHAMPTON AREA

NORTHAMPTON

City Aviation, Inc.
Le Fleur Airport 01060

Cooley Dickinson Hosp. School. of X-Ray Tech.
30 Locust Street 01060

TURNERS FALLS

Franklin Airways
01376

WORCESTER AREA

DUDLEY

Dudley Hall Career Institute
258 West Main Street

HOPEDALE

Hopedale Airways, Inc.
Hopedale Airport 01747

STERLING

Sterling Aviation

WORCESTER

Brons Academy of Hairdressing
623 Main Street 01608

Brons Barber School
584 Main Street 01608

WORCESTER (Cont'd)

Cross Academy
Seven Hills Plaza 01600

Electronic Computer Programming Institute
15 Maple Street 01608

Leo's Beauty Institute
105 Southbridge Street 01608

Salter Secretarial School
45 Cedar Street 01609

State Realty Institute
390 Main Street

Vitek (Air Worcester)

PROPRIETARY SCHOOLS - VOCATIONAL (CONT'D)

FITCHBURG/GARDNER AREA

FITCHBURG

Fitchburg Aviation, Inc.
Municipal Airport 01420

Henri's School of Hair Design
276 Water Street 01420

Hunter Aviation Corp.
Fitchburg Airport 01420

FRAMINGHAM AREA

FRAMINGHAM

Kenneth Hair Design
12 Irving Street 01701

Opticians School of Framingham
P.O. Box 2097

HOLLISTON

New England Educational Center
Popers Road 01746

MARLBORO

Don's Flying Service

Marlboro Hosp. School of Radiologic Tech.
57 Main Street 01752

LYNN/SALEM AREA

BEVERLY

Essex County Educational Center
6 Kathleen Drive

Instrument Flight Training
Beverly Airport 01915

North Atlantic Airways

New England Flyers Airservice
Beverly Airport 01915

New England School of Real Estate
50 Elliott Street

DANVERS

East Coast Tractor Trailer School

LYNN

Continental Beauty Academy

MELROSE

Melrose Beauty Academy

SALEM

Mansfield Academy of Beauty Culture
254 Essex Street 01970

SAUGUS

Saugus General Hosp Schl. of X-Ray Tech
81 Chestnut Street 01902

SWAMPSCOTT

Marian Court Secretarial School
35 Littles Point Road 01907

PROPRIETARY SCHOOLS - VOCATIONAL (CONT'D)

ANDOVER/LOWELL AREA

ANDOVER

Andover School of Business
90 Main Street 01810

Andover Tractor Trailer School

HAVERHILL

La Baron Academy of Hairdressing
139 Merrimack Street

Dutton Flying Service

LAWRENCE

M. Fazio Institute of Beauty Culture
354 Essex Street 01840

Michael's School of Hair Design, Inc.
360 Essex Street

EAST PEPPERELL

B.B. Airways

LOWELL

Lowell Academy of Hairdressing, Inc.
136 Central Street 01852

Solari School of Hair Design
128 Merrimack Street 01852

NORTH ANDOVER

Four Star Aviation, Inc.
Lawrence Municipal Airport 01845

TEWKSBURY

Tew Mac Aviation, Inc.
Main & Livingston Street 01876

Tewksbury Hops. School of Prac. Nurs.
East Street 01876

BURLINGTON/BEDFORD AREA

BEDFORD

Aero Progress, Inc.
Hanscom Field 01730

Comerford Flight School

Executive Flyers Aviation Academy
Hanscom Field 01730

Technical Aero Service
Hanscom Field 01730

BURLINGTON

Control Data Institute
20 North Avenue 01803

LEXINGTON

East Coast Aero Technical School
Hanscom Field,
P.O. Box 426 02173

WOBURN

Woburn Business School

PROPRIETARY SCHOOLS - VOCATIONAL (CONT'D)

BROCKTON AREA

BROCKTON

Brockton Academy of Beauty Culture
162 Warren Avenue 02401

La Baron Hairdressing Academy
173 Main Street

Old Colony Trade School
426 North Warren Avenue 02401

EAST TAUNTON

King Aviation Service, Inc.
Taunton Municipal Airport 02718

HANOVER

House of Realty Real Estate School
Rte. 53 & Broadway

MANSFIELD

Carleton Whitney Aero Service, Inc.
Mansfield Municipal Airport

MARSHFIELD

Marshfield Aviation

NORWELL

Hall Institute of Real Estate

NORWOOD

Aviation Career Institute
100 Access Road

Norwood Hosp. Schl. of X-Ray Tech
800 Washington Street 02062

Wiggins Airways
Municipal Airport, Access Road 0206[illegible]

PEMBROKE

Chandler School of Welding

STOUGHTON

Goddard Mem. Hosp. Schl. of X-Ray Tech.
909 Sumner Street 02072

New England Institute of Real Estate
845 Washington Street

FALL RIVER/NEW BEDFORD AREA

FALL RIVER

Fall River Academy of Beauty Culture
260 South Main Street 02721

Union Hospital Schl. of X-Ray Tech.
Highland Avenue 02720

NEW BEDFORD

La Baron Hairdressing Academy
281 Union Street 02740

New Bedford Beauty Academy, Inc.
1872 Acushnet Avenue 02740

TAUNTON

Taunton Beauty Academy
1 School Street 02780

FALMOUTH/BARNSTABLE AREA

EAST FALMOUTH

Wills Flying Service
Falmouth Airport 02536

HYANNIS

Sullivan Real Estate School
Route 132

PROPRIETARY SCHOOLS - VOCATIONAL (CONT'D.)

BOSTON AREA

ALLSTON

Jean Cappy, Inc.
130-132 Harvard Avenue 02134

BOSTON

Academie Moderne, Inc.
35 Commonwealth Avenue

Barbizon School of Modeling
739 Boylston Street

Bay State Jr. College of Business
122 Commonwealth Avenue 02116

Boston City Hospital School for Nursing
818 Harrison Avenue 02118

Bryant Stratton Commercial School
867 Boylston Street 02116

Burdett School
160 Beacon Street 02116

Career Academy
70 Brookline Avenue 02215

Andover Institute of Business
715 Boylston Street 02116

Career Training Institute

Carol Nashe School
480 Commonwealth Avenue 02215

Chandler School for Women
448 Beacon Street 02115

Children's Hospital Medical Center
300 Longwood Avenue 02115

Coyne Electrical and Technical School
100 Massachusetts Avenue 02115

Copley Secretarial Institute
739 Boylston Street 02116

BOSTON (Cont'd)

Court and Legal Stenographers
Institute

Dale Academy of Hairstyling
476 Boylston Street 02116

Eleanor F. Roberts Inst. of Electrology
59 Temple Place 02111

Electronic Computer Programming Institute
528 Commonwealth Avenue 02215

Emery School
120 Boylston Street 02116

Miss Farmer's School of Cookery, Inc.
40 Hereford Street 02115

Hickox Secretarial School
200 Tremont Street 02116

The Insurance School
Insurance Library Assn. of Boston
One Beacon Street 02108

ITT Technical Institute
985 Commonwealth Avenue 02215

John Robert Powers Finishing School
304 Boylston Street

Miss Kelly's Schl. of Electrology
Zero Emerson Place

Katherine Gibbs School
21 Marlborough Street 02116

License Exam School
Mass. Assn. of Real Estate Boards
4925 Prudential Tower 02199

Management Development Institute
755 Boylston Street 02116

Mansfield Academy of Beauty Culture
144 Boylston Street 02131

TON AREA (Cont'd)

BOSTON (Cont'd)

arshall Jenkins School for Secretaries
35 Commonwealth Avenue

Mass. Gen. Hosp. Schl. of Radiologic Tech.
ruit Street 02114

assachusetts Radio & Electronic School
71 Huntington Avenue 02115

assachusetts School of Barbering
46 Washington Street 02111

n Gourmet School

gland Appliance Service School
Commonwealth Avenue 02215

England Barber College
Washington Street 02185

ew England School of Art
85 Huntington Avenue 02115

New England School of Mechanical Dentistry
739 Boylston Street 02116

New England School of Photography
537 Commonwealth Avenue

New England School of Steam Engineering
120 Boylston Street

rtheast Broadcasting School
Marlborough Street 02116

ul School of Marine Engineering
/o Boston Seaman's Friend Society, Inc.
7 Park Square 02116

tricia Stevens School
5 Tremont Street

rson's School for Steam Engineering
Milk Street 02109

.E.T.S. Electronic Schools
5 Commonwealth Avenue 02215

ittners School of Floral Design
45 Marlborough Street 02115

Professional Bartenders School
739 Boylston Street

School of Medical Photography
Beth Israel Hospital
300 Brookline Avneue

School of Medical Illustration
30 Fruit Street 02114

Art Institute of Boston
718 Beacon Street 02115

Touch Shorthand Academy
333 Washington Street 02108

United Technical Institute
70 Brookline Avenue

University Hospital Schl. of X-Ray Tech.
750 Harrison Avenue 02118

Vesper George School of Art
42-44 St. Botolph Street 02116

Wilfred Academy
120 Tremont Street 02108

Willett Institute of Finance
120 Boylston Street

Cambridge Schl. of Plumbing Layout & Design
931 Dorchester Avenue 02225

BRIGHTON

Leland Powers School
2001 Beacon Street

BROOKLINE

Lee Institute of Real Estate
310 Harvard Street 021.9

Bryan Medix School
32 Boylston Street 02146

CAMBRIDGE

DiAnthony School of Cosmetology, Inc.
2107 Massachusetts Avenue 02140

BOSTON AREA (Cont'd)

CAMBRIDGE (Cont'd)

Cambridge City Hosp. Schl. of X-Ray Tech.
1493 Cambridge Street 02139

New England Fuel Inst. Technical Training
34 Cottage Park Avenue 02140

Center for Visual Studies at Imageworks
63 Rogers Street

CHELSEA

Beauty Creators School of Hairdressing
313 Broadway 02150

ITT Technical Institute
45 Spruce Street 02150

DORCHESTER

Neponset Circle School of Welding
750 Gallivan Boulevard 02122

MALDEN

Solari School of Hair Design
330 Main Street 02146

Tech-Age School of Malden
6 Pleasant Street 02148

NEEDHAM

Glover Mem. Hosp. Schl. of X-Ray Tech.
148 Chester Street 02192

NEWTON CENTER

Lacy Sales Institute
80 Union Street 02159

QUINCY

Hanover Beauty Academy
24 Cottage Avenue 02169

Mansfield Academy of Beauty Culture
200 Parking Way 02169

New England Tractor Trailer Training
542 E. Squantum Street 02171

Quincy Beauty Academy
30 Franklin Street 02169

ROXBURY

Boston Business School
959 Commonwealth Avenue 02215

La Newton School of Beauty Culture
636 Warren Street 02119

SOMERVILLE

Associated Technical Institute

WALTHAM

American Real Estate Academy
771 Main Street

Robert Pritchard Beauty Academy
200 Moody Street 02154

Sylvania Technical School
63 Second Avenue 02154

WELLESLEY

Henry I. Simmons School

WESTWOOD

Allied Tractor Treiler

WEST ROXBURY

Debonaire Academy of Beauty Culture
47 Spring Street

La Parisienne Beauty Academy
253 Washington Street 021[illegible]

INDEPENDENT NON-PROFIT SCHOOLS - VOCATIONAL

SPRINGFIELD AREA

HOLYOKE

Holyoke Hospital School of Nursing
575 Beach Street 01040

Providence Hospital School of
X-Ray Technology
1233 Main Street 01040

SPRINGFIELD

Mercy Hospital School of X-Ray Technology
233 Carew Street 01104

Springfield Hospital Medical Center
School of Nursing
759 Chestnut Street 01107

Western Mass. School for Practical Nursing

PITTSFIELD/NORTH ADAMS AREA

NORTH ADAMS

North Adams Hospital School of
X-Ray Technology
Hospital Avenue 01247

North Adams School of Anesthesia
Hospital Avenue 02147

PITTSFIELD

Berkshire Medical Center School of Anesthesia
725 North Street 01201

St. Lukes Hospital School of Nursing
333 East Street 01201

AMHERST/NORTHAMPTON AREA

GREENFIELD

Franklin County Public Hospital School of X-Ray Technology
172 High Street 01301

WORCESTER AREA

WORCESTER

Memorial Hospital School of Nursing
119 Belmont Street 01605

New England School of Accounting
45 Cedar Street 01609

St. Vincent Hospital School of
X-Ray Technology
25 Winthrop Street 01610

WORCESTER (Cont'd)

St. Vincent Hospital School of Nursing
25 Winthrop Street 01610

Worcester Hahnemann Hospital School of
Nursing
281 Lincoln Street 01605

INDEPENDENT NON-PROFIT SCHOOLS - VOCATIONAL (CONT'D.)

FITCHBURG/GARDNER AREA

FITCHBURG

Burbank Hospital School of Nursing
Nichols Road 01420

Burbank Hospital School of X-Ray
Technology
Nichols Road 01420

LEOMINSTER

Leominster Hospital School of Nursing
Hospital Road 01453

FRAMINGHAM AREA

FRAMINGHAM

Framingham Union Hospital School of X-Ray Technology
25 Evergreen Street 01701

Framingham Union Hospital School of Nursing
Evergreen Street 01701

LYNN/SALEM AREA

BEVERLY

Beverly Hospital School of Nursing
Merrick & Heather Streets 01915

Beverly Hospital School of X-Ray
Technology
Merrick & Heather Streets 01915

GLOUCESTER

Addison Gilbert Hospital School of
X-Ray Technology
298 Washington Street 01930

LYNN

Lynn Hospital School of Nursing
212 Boston Street 01904

Lynn Hospital School of X-Ray
Technology
212 Boston Street 01904

Union Hospital School of X-Ray
Technology
500 Lynnfield Street 01904

MELROSE

Melrose Wakefield Hospital School of Nursing
340 Main Street 02176

SALEM

Salem Hospital School of Nursing
81 Highland Avenue 01970

Salem Hospital School of X-Ray Technology
81 Highland Avenue 01970

VER/LOWELL AREA

HAVERHILL

averhill Municipal Hospital School
of X-Ray Technology
Buttonwoods Avenue 01830

AWRENCE

awrence General Hospital School of
Nursing
Garden Street 01840

awrence General Hospital School of
X-Ray Technology
1 Garden Street 01840

LOWELL

Lowell General Hospital School of
Nursing
295 Varnum Avenue 01850

LINGTON/BEDFORD AREA

WOBURN

Charles Choate Memorial Hospital
School of X-Ray Technology
21 Warren Avenue 01801

TON AREA

ROCKTON

rockton Hospital School of Nursing
50 Centre Street 02402

ondville Hospital School of Practical
Nursing

L RIVER/NEW BEDFORD AREA

NEW BEDFORD

Kinyon & Campbell Business School
222 Union Street 02041

LOWELL (Cont'd)

Lowell General Hospital School of X-Ray
Technology
295 Varnum Avenue 01850

St. John's Hospital School of X-Ray
Technology
14 Bartlett Street 01852

METHUEN

Bon Secours Hospital School of X-Ray
Technology
70 East Street 01844

STONEHAM

New England Memorial Hospital School of
X-Ray Technology
5 Woodland Road 02180

SOUTH WEYMOUTH

South Shore Hospital School of X-Ray
Technology
90 Columbian Street 02190

BOSTON AREA

BOSTON

Art Institute of Boston,
702 Beacon Street

Beth Israel Hospital School for
Dental Assistance
330 Brookline Avenue 02215

Boston City Hospital School of
X-Ray Technology
818 Harrison Avenue 02118

Butera School of Art
111 Beacon Street 02116

Carnegie Institute Medical School
65 Anderson Street 02114

Carney Hospital School of Anesthesia
2100 Dorchester Avenue 02124

Chamberlayne School of Retailing
90 Marlborough Street

Faulkner Hospital School of Nursing
1153 Centre Street 02130

Faulkner Hospital School of X-Ray
Technology
1153 Centre Street 02130

Forsyth School for Dental Hygienists
140 The Fenway 02115

Mass. General Hospital School for
Nursing
Fruit Street 02100

New England Deaconess Hospital School
of Nursing
185 Pilgrim Road 02215

New England Medical Center School of
X-Ray Technology
171 Harrison Avenue 02215

Northeast Institute of Industrial
Technology
41 Phillips Street 02114

Peter B. Brigham Hospital School of
Nursing
721 Huntington Avenue 02115

BOSTON (Cont'd)

Peter B. Brigham Hospital School for X-Ray
Technology
721 Huntington Avenue 02115

School of Fashion Design
136 Newbury Street 02116

Shepard-Gill School of Practical Nursing
222 Newbury Street 02116

Veterans Administration Hospital
150 S. Huntington Avenue 02130

BRIGHTON

St. Elizabeth's Hospital School of Nursing
736 Cambridge Street 02135

St. Elizabeth's Hospital School of X-Ray
Technology

CAMBRIDGE

Mt. Auburn Hospital School for Nursing
330 Mt. Auburn Street 02138

Youville Hospital School of Practical Nursing
1575 Cambridge Street

CHELSEA

Soldiers Home School of Practical Nursing

EVERETT

Whidden Memorial Hospital School of Nursing
103 Garland Street 01742

JAMAICA PLAIN

Lemuel Shattuck Hospital School of Practical
Nursing
180 Morton Street 02130

INDEPENDENT NON-PROFIT SCHOOLS - VOCATIONAL (CONT'D.)

BOSTON AREA (Cont'd.)

MALDEN

Malden Hosp. Schl. of Nursing
Hospital Road 02148

Malden Hosp. Schl. of X-Ray Tech.
Hospital Road 02148

MEDFORD

Lawrence Mem. Hosp. Schl. of Nursing
170 Governors Avenue 02155

MILTON

Milton Hosp. Schl. of X-Ray Tech.
92 Highland Street 02186

NEWTON LOWER FALLS

Newton-Wellesley Schl. of Nursing
2014 Washington Street 02154

Newton-Wellesley Schl. of X-Ray Tech.
2014 Washington Street 02154

QUINCY

Quincy City Hosp. Schl. of Nursing
114 Whitwell Street 02169

Quincy City Hosp. Schl. of X-Ray Tech.
114 Whitwell Street 02169

ROXBURY

New England Baptist Hosp. Schl. of Nursing
91 Parker Hill Avenue 02120

SOMERVILLE

Somerville Hosp. Schl. of Nursing
230 Highland Avenue 02143

WALTHAM

Waltham Hosp. Schl. of X-Ray Tech.
Hope Avenue

VOCATIONAL-TECHNICAL SCHOOLS AND OTHER PUBLIC POSTSECONDARY SCHOOLS

SPRINGFIELD AREA

Holyoke Trade High School
325 Pine Street, Holyoke

Roger L. Putnam Vocational-Technical High School
1300 State St., Springfield

PITTSFIELD/NORTH ADAMS AREA

Charles H. McCann Regional Technical Institute
Hodges Crossroad, North Adams 02147

Pittsfield Vocational High School
Valentine Road, Pittsfield 01201

AMHERST/NORTHAMPTON AREA

Smith's Vocational and Agricultural High School
80 Locust Street, Northampton 01060

WORCESTER AREA

Worcester David Hale Fanning Trade High School
24 Chatham Street, Worcester 01608

Worcester Industrial Technical Institute
26 Salisbury Street, Worcester 01605

FITCHBURG/GARDNER AREA

Leominster Vocational High School
Granite Street, Leominster 01453

Montachusett Regional Technical Institute
1050 Westminster Street, Fitchburg 01420

FRAMINGHAM AREA

Assabet Valley Regional Vocational-Technical School
Fitchburg St., Marlboro 01752

South Middlesex Regional Vocational-Technical School
750 Winter Street, Framingham 01701

LYNN/SALEM AREA

Lynn Vocational Technical Institute
80 Neptune Boulevard, Lynn 01902

Northeast Metropolitan Regional Technical Institute
Breakheart Reservation, Wakefield 018[illegible]

VOCATIONAL-TECHNICAL SCHOOLS AND OTHER PUBLIC POSTSECONDARY SCHOOLS

(CONTINUED)

ANDOVER/LOWELL AREA

Essex Agricultural and Technical Institute
Maple Street, Hathorne 01937

Greater Lawrence Regional Technical Institute
57 River Road, Andover 01810

Lowell Trade High School
64 John Street, Lowell 01852

Whittier Regional Vocational-Technical School
115 Amesbury Line Rd., Haverhill 01830

BURLINGTON/BEDFORD AREA

None

BROCKTON AREA

Blue Hills Regional Technical Institute
100 Randolph Street, Canton 02021

Henry O. Peabody School
Peabody Road, Norwood 02062

FALL RIVER/NEW BEDFORD AREA

Bristol-Plymouth Regional Vocational-Technical High School
940 County St., Taunton 02780

Dinan Regional Technical Institute
Stonehaven Rd., Fall River 02723

Southeastern Regional Technical Institute
250 Foundry Street, South Easton 02375

FALMOUTH/BARNSTABLE AREA

Upper Cape Cod Regional Vocational-Technical High School
148 McArthur Boulevard, Bourne 02532

BOSTON AREA

Boston Girls Trade High School
56 the Fenway, Boston 02115

Quincy Vocational Technical High School
Woodward Avenue, Quincy 02169

VOCATIONAL-TECHNICAL SCHOOLS AND OTHER PUBLIC POSTSECONDARY SCHOOLS

(CONTINUED)

Waltham Vocational High School
100 Summer Street, Waltham 02154

Weymouth Vocational Technical High School
1051 Commercial Street, East Weymouth 02189

COMMUNITY COLLEGES

SPRINGFIELD AREA

Holyoke Community College
170 Sargent Street
Holyoke 01401

Springfield Technical Community College
Armory Square
Springfield 01101

PITTSFIELD/NORTH ADAMS AREA

Berkshire Community College
Second Street
Pittsfield 01202

AMHERST/NORTHAMPTON AREA

Greenfield Community College
125 Federal Street
Greenfield 01301

WORCESTER AREA

Quinsigamond Community College
670 West Boylston Street
Worcester 01606

FITCHBURG/GARDNER AREA

Mount Wachusett Community College
Elm Street
Gardner 01440

FRAMINGHAM AREA

None

LYNN/SALEM AREA

North Shore Community College
3 Essex Street
Berverly 01915

ANDOVER/LOWELL AREA

Northern Essex Community College
50 Chadwick Street
Haverhill 01832

BURLINGTON/BEDFORD AREA

Middlesex Community College
Springs Road
Bedford 01730

COMMUNITY COLLEGES

(CONTINUED)

BROCKTON AREA

Massasoit Community College
Howard Street
West Bridgewater 02379

FALL RIVER/NEW BEDFORD AREA

Bristol Community College
64 Durfee Street
Fall River 02720

FALMOUTH/BARNSTABLE AREA

Cape Cod Community College
West Barnstable 02668

BOSTON AREA

Bunker Hill Community College
Rutherford Avenue
Charlestown 02129

Roxbury Community College
2401 Washington Street
Roxbury 02119

Massachusetts Bay Community College
57 Stanley Avenue
Watertown 02172

INSTITUTIONS OTHER THAN COMMUNITY COLLEGES WHICH GRANT ASSOCIATE DEGREES

SPRINGFIELD AREA

American International College
Springfield 01109

Bay Path Junior College
588 Longmeadow Street
Longmeadow 01106

PITTSFIELD/NORTH ADAMS AREA

none

AMHERST/NORTHAMPTON AREA

University of Massachusetts
Amherst 01002

WORCESTER AREA

Atlantic Union College
South Lancaster 01561

Becker Junior College
611 Sever Street
Worcester 01609

Leicester Junior College
1003 Main Street
Leicester 01524

Worcester Junior College
Worcester

FITCHBURG/GARDNER AREA

none

FRAMINGHAM AREA

none

LYNN/SALEM AREA

Endicott Junior College
Beverly 01915

ANDOVER/LOWELL AREA

Merrimack College
North Andover 01845

INSTITUTIONS OTHER THAN COMMUNITY COLLEGES WHICH GRANT ASSOCIATE DEGREES

BURLINGTON/BEDFORD AREA

none

BROCKTON AREA

Dean Junior College
99 Main Street
Franklin 02038

FALL RIVER/NEW BEDFORD AREA

Southeastern Massachusetts University (Public)
North Dartmouth 02747

FALMOUTH/BARNSTABLE AREA

none

BOSTON AREA

Acquinas Jr. College of Business
303 Adams Street
Milton 02186

Acquinas Jr. College of Business
15 Walnut Park
Newton 02158

Bentley College
Waltham 02154

Cambridge Jr. College
49 Washington Ave.
Cambridge

Chamberlayne Jr. College
128 Commonwealth Ave.
Boston 02116

Fisher Junior College
18 Beacon Street
Boston 02116

Franklin Institute of Boston
41 Berkley Street
Boston 02116

Garland Jr. College
409 Commonwealth Ave.
Boston 02215

Grahm Jr. College
632 Beacon Street
Boston 02215

Laboure Jr. College
2120 Dorchester Ave.
Boston 02124

Lasell Jr. College
Auburndale 02166

Mt. Ida Jr. College
777 Dedham St.
Newton Center 02159

Newbury Jr. College
921 Boylston Street
Boston 02115

New England Institute of
Anatomy, Sanitary Science and
Embalming
Bosto.. 02215

INSTITUTIONS OTHER THAN COMMUNITY COLLEGES WHICH GRANT ASSOCIATE DEGREES

BOSTON AREA (CONTINUED)

Newton Jr. College (Public)
Wash. Park and Walnut St
Newtonville 02160

Northeastern University
360 Huntington Ave.
Boston 02115

Quincy Jr. College (Public)
Quincy

Suffolk University
41 Temple Street
Boston 02114

Wentworth Institute
550 Huntington Ave.
Boston 02115

Wheelock College
200 Riverway
Boston 02215

PROPRIETARY & INDEPENDENT NON-PROFIT SCHOOLS -- AVOCATIONAL

A = Art
C = Charm
D = Dance
DI = Diving
DR = Driving
G = Gymnastics
L = Language
M = Music
PA = Performing Arts
S = Sewing
SD = Self-Defence
SE = Self-Enrichment
SI = Self-Improvement

SPRINGFIELD AREA

DR	ABC Driving School	Springfield
D	Anita's Dance Studio	Springfield
D	Fred Astaire Dance Studio	Springfield
DR	Belmont Driving School	Springfield
M	Campbell Academy School	Chicopee
M	Caputo School of Music	Springfield
D	Carol's Dance Studio	Chicopee
D	Charmaine School of the Dance	Springfield
DR	Elm Auto School	West Springfield
DR	Fairbank Auto School	Springfield
D	Jo-Ann's Dance Studio	Springfield
L	Mathes Academy of Languages	Springfield
D	Maria's School of Dance	Springfield
D	Mary Anne Studio of Dance	Springfield
DR	Massachusetts Driving Center	West Springfield
DR	Metropolitan Auto School	East Longmeadow
DR	Park Auto School	Springfield
SD	Take Judo & Karate Center	Springfield
SD	Tracy's Karate Studio	Springfield
SD	Uechi-Ryu Karate Academy	Springfield
DR	Wilcox Auto School	Ludlow
DR	Winchester Auto Sheool	Springfield
M	Academy School of Music	Springfield
D	Langevin School of Dance	Palmer
M	Harmony House School of Music	Indian Orchard
D	Michele's Dance Studio	Holyoke
SI	Misty Self-Improvement School	Springfield
DR	Wilson Auto School	Chicopee

PROPRIETARY & INDEPENDENT NON-PROFIT SCHOOLS -- AVOCATIONAL

SPRINGFIELD AREA (CONTINUED)*

M	George Crete Music Center	Holyoke
D	Hal Lolly Schopl of Dancing	Holyoke
DR	McDermott's Driving School	Holyoke
D	Henry Moquin School of Dance	Holyoke
DR	O'Brien Driving School	Holyoke
DR	Scott's Driving School	Holyoke
C	Mrs. Doris F. Reardon, Charm Specialist	Holyoke
D	Betty Champion's Dance Studio	Westfield
D	Cindy's School of Dance	Westfield
D&G	Barbara Drumm Mayne Dance Studio & School of Gymnastics	Westfield
D	Rosemary's School of Dance	Westfield

PITTSFIELD/NORTH ADAMS AREA *

D	Fred Astaire Dance Studio	Pittsfield
D	Cantarella School of Dance	Pittsfield
D	DeLugan Ballroom Dance School	Pittsfield
DR	Jim's Auto Driving School	Pittsfield
M	Merrywood Music School	Lenox
G	Bonnie Puddon Institute for Physical Fitness	Stockbridge
DR	Renold's Auto Driving School	Pittsfield
SD	Uechi-Ryu Karate School	Pittsfield
DR	Great Barrington Driving School	Great Barrington
D	Holroyd Ballet School	Pittsfield
DR	Southern Berkshire Driving School	Great Barrington
DR	Scott's Driving School	Adams

PROPRIETARY & INDEPENDENT NON-PROFIT SCHOOLS -- AVOCATIONAL

AMHERST/NORTHAMPTON *

DR	Benoit's Driving School Northampton
A	Cummington School of the Arts Cummington
DR	Nichols Auto School East Hampton
DR	Northampton Driving School Northampton
DR	O'Rourke's Driving School Northampton

WORCESTER AREA *

D	Doris McGeary Dance Studio Webster
DR	E-Z Auto School Dudley
C	Nancy Taylor Charm School Worcester
DR	Ideal Driving School Sturbridge
D	Joan Louise School of Dance Sturbridge
D	A.M. Dance Studio Worcester
DR	A. Taggarts Driving School Worcester
DI	Aquatic Center Boylston
DR	Auburn Auto School Auburn
D	Barkecz-Ross School of Ballet & Dance Boylston
DR	Carey's Auto Driving School Worcester
D	Carol-Lynn's Dance Studio Whitinsville
A	Craft Center Worcester
DR	Crossman Driving School Worcester
DR	Defensive Driving School Whitinsville
DR	Deluxe Driving School Worcester
D	Walter Fields Dance Studio Worcester
DR	Ginger Alicandros Auto School Worcester
DR	Grafton Auto Driving School North Grafton
D	Honey Felicetti Dance Studio Worcester

PROPRIETARY & INDEPENDENT NON-PROFIT SCHOOLS -- AVOCATIONAL

WORCESTER AREA (CONTINUED)*

SD	Judo Academy Grafton
DR	Keating's Auto School Shrewsbury
D	Karen LaBrie Dance Studio Worcester
DR	LaPorte Auto Driving Shcool Worcester
S	Mr. G's Sewing Center Worcester
DR	Pleasant Auto Shcool, Inc. Worcester
D	Marion Ritacco School of Dancing Worcester
D	Rose's Dance Studio Worcester
DR	Safety First Driving Academy Worcester
SE	Silva Mind Control Worcester
M	Silvester Music House Worcester
DR	State Auto School Worcester
D	Eleanor Thompson's Dance Studio Boylston
SD	Tracy's Karate Studios Worcester
PA	Worcester Community School of the Performing Arts Worcester
RI	Worcester Reading Institute Worcester
D	Joan Van Rauskas School of Dance Worcester

FITCHBURG/GARDNER AREA*

C	Miss Dee School of Charm Fitchburg
D	Dale-Carlton School of Dance Athol
DR	Racette's Driving School Gardner
DR	Wachusett Driving School Gardner
DR	Alli's Auto School Fitchburg
D	American Style Dance Studio Fitchburg
DR	Frank's Auto School Fitchburg

PROPRIETARY & INDEPENDENT NON-PROFIT SCHOOLS -- AVOCATIONAL

RAMINGHAM AREA *

R Bay State Auto School
Framingham

R Deluxe Driving School
Southboro

R Christo Auto School
Marlboro

R A & A Auto School
Framingham

R ABC Auto Driving School
Natick

D Acton School of Ballet
West Acton

D Sharon Cell School of Dance
Marlboro

D Jean's School of Dance
Hudson

D Phyllis Richards Dance Studio
Acton

SD Shotokan Karate Dojo
Maynard

DR Samuel Crisafulli Auto School
Natick

D Framingham Ballroom Dance Studio
Framingham

M International Conservatory of Music
Natick

SI Kingsley Manor Reading Center
Holliston

D Janet Miles Dance Studio
Natick

D Bob Perry Dance Studio
Natick

D Studio of Ballet Arts
Sudbury

PA Walnut Hill School of the Performing Arts
Natick

LYNN/SALEM AREA *

DP A. Taggarts Driving School
Lynn

DR Mitchells Driving School
Gloucester

DR Anthony & Salem Auto School
Marblehead

DR Bond Auto Driving School
Peabody

DR Chet's Auto Driving School
Danvers

DR Chet's Auto Driving School
Salem

PROPRIETARY & INDEPENDENT NON-PROFIT SCHOOLS -- AVOCATIONAL

D Deane School of Dance
Salem

D Formuld for Fitness School of Exercise and Dance
Marblehead

D Gordon Ballroom Studios
Lynn

D Midge and Bill Haggett Dance Education
Marlboro

D Jenkins Dance Studio
Peabody

SI Leigh-Bel Institute for Self Improvement

A Montserrat School of Visual Art
Beverly

D Gene Murray Dance Education Studio
Salem

G North Shore School of Gymnastics
Salem

DR O'Brien's Driving School
Beverly

DR Peabody Auto School
Peabody

DR Pleasant Auto School
Peabody

DR Salvo's Auto School
Salem

SD United Studios of Self Defense
Peabody

DR Lynn Auto School
Lynn

D Lynn Dance Academy
Lynn

DR Nichols School of Driving
Lynn

DR Mr. D. School of Driving
Lynn

A North Shore Design Studio
Peabody

C North Shore Fashion Institute
[illegible]

DR Chandler's Auto School
Newburyport

D Faulkner's Dance Studio
Lynn

D Gordon Ballroom Studios
Lynn

ANDOVER/LOWELL AREA *

DR Bond Auto Driving School
Lowell

DR Chelmsford Auto School
Chelmsford

DR City Hall Driving School
Lowell

D Demetra School of Dance
Lowell

SI Learning Foundations
Lowell

D Marshall Sisters Dancing Academ
Lowell

DR Merrimac Driving School
Tewksbury

D Shirley Terrill Studio of the Dance
Lowell

PROPRIETARY & INDEPENDENT NON-PROFIT SCHOOLS -- AVOCATIONAL

ANDOVER/LOWELL AREA (CONTINUED) *

D	Star Styled Dance Classes	Lowell
DR	Wannalancit Rite-Way Driving School.	Lowell
DR	Westford Auto School	Westford
DR	Wilmington Driving School	Wilmington
DR	Chandlers Auto School	Haverhill
D	McNally School of Dancing	Haverhill
DR	Michael's Auto School	Haverhill
D	Lorraine Reynolds Dance Academy	Haverhill
D	Aina Jansons Ballet Academy	Andover
D	Beth's Dance Studio	Lawrence
DR	D & G Auto School	Methuen
DR	Lawrence Auto School	Lawrence
SI	Learning Foundations	Lawrence
SD	Lie's Tae Kwon Do School of Korean Karate	
D	Little Professionals Dance Studio	North Andover
DI	Merrimack School of Diving	Andover
D	Merrimack Valley Academy of Dance	Andover
DR	Michael's Auto School	Lawrence
SE	Outward Bound, Inc.	Andover
A	Pennise Art Studio	Lawrence
D	Stage Door Studios of Dance and Acrobatics	Palmer
DR	South Lawrence Auto School	Lawrence
DR	Tower Hill Auto School	

BURLINGTON/BEDFORD AREA *

A	Leslee's Ceramic Studio	Reading

PROPRIETARY & INDEPENDENT NON-PROFIT SCHOOLS -- AVOCATIONAL

BROCKTON AREA *

D	Hazel Boone Dance Studios	Canton
D	Cindy's School of Dance	Mansfield
DR	Martin Dyer Driving School	Mansfield
DR	A. Taggarts Driving School	Brockton
DR	Abington Driving School	Abington
DR	Mid-Cape Driving School	Rockland
D	Doris Cross Corbett	Plymouth
DR	North River Auto School	Marshfield
DR	Labonte's Auto School	Attleboro
D	McKeon Dance School	Attleboro
DR	Pennsvalle Driv-Rite Auto School	N. Attleboro
DR	Brockton Auto School	Brockton
DR	Gary School of Driving	Brockton
D	Gilberts Dance Studios of Dance Education	Bridgewater
SD	Mattson Academy of Karate	Brockton
D	Plouffe School of Dancing	Brockton

FALL RIVER/NEW BEDFORD AREA *

DR	A-1 Driving School	New Bedford
M	Jose de Costa Music School	New Bedford
M	K & F Music, Inc.	New Bedford
DR	Luso-American Driving School	New Bedford
DR	Mary's Auto Driving School	New Bedford
D	Metronome Dance Studio	New Bedford
DR	Modern Driving School	North Dartmouth
D	New Bedford Dance Academy	New Bedford
M	Tony Pacheo Guitar Studio and Music Store	New Bedford
D	Stella Pifke Dance Studio	New Bedford
DR	Al Torran Driving School	New Bedford
DR	A & M Driving School	Fall River

FALL RIVER/NEW BEDFORD AREA (CONTINUED) *

D	Delight's School of Dancing Fall River
DR	Fall River Driving Academy Fall River
SI	Fall River Reading Institute Fall River
S	Farrington's School for Sewing Fall River
A	Holy Crest Ceramic Studio Somerset
DI	Mass. School of Skin Diving Fall River
DR	A. Paira Auto School Fall River
D	Russ Khalan Dancing School Fall River
DR	Will's Auto School Fall River
DR	A. Taggarts Driving School Taunton
D	Cindy's School of Dance Mansfield
DR	Martin Dyer Driving School Mansfield
DR	Martin Dyer Driving School Taunton
DR	Southeastern Driver Ed. School Middleboro
D	Taunton School of Ballet Taunton

FALMOUTH/BARNSTABLE AREA *

M	Cape Cod Conservatory Barnstable
D	Cape Cod School of Ballet and Theater Hyannis
DR	Cape Cod Driving School Hyannis
D	Cape Cod School of Ballet and Theater South Yarmouth
D	Carousel Ballroom Dance Studio Hyannis
C	Frasier School of Social Graces Hyannis
D	Hyannis Ballet Academy Hyannis
SE	Silva Mind Control Mashpee

BOSTON AREA *

DR	A & B Auto School Norwood
DR	A. Taggarts Driving School Boston
L	Academia School of Languages Cambridge
G	Academy of Gymnastics and Perceptual Motor Wellesley
D	Academy of the Dance East Boston
PA	Actor's Workshop Boston
SD	Aikido of New England Cambridge
M	All Newton Music School Newton
PA	American Center for the Performing and Creative Arts
SI	American Reading Institute Arlington
DR	Andrew Auto School Boston
D	Anna Caritz School of Dancing Weymouth
DR	Arlex Auto School Arlington
M	Arlington Academy of Music Arlington
DR	Arrow Auto School Medford
D	Arthur Murry Dance Studios Boston
DR	Ashmont Auto School Dorchester
DR	B & T Auto School Dorchester
D	Babushkina School of Ballet Boston
DR	Ed Baker Auto School Needham
DR	Bay State Auto School Brookline
SD	Bay State Judo Club Newton
L	Berlitz School of Languages Wellesley
M	Bernard Music Studios Brighton
DR	Bill Joyce Auto Schools West Roxbury
D	Boston Ballroom Dance Studios Boston
	Boston-Brookline Collaborative Center
D	Boston School of Ballet Boston
L	Boston School of Modern Languages Boston
M	Brookline Music School Brookline
D	Stanley Brown Dance Studios Boston
D	Cambridge School of Ballet Cambridge
M	Center for Chamber Music Cambridge

PROPRIETARY & INDEPENDENT NON-PROFIT SCHOOLS -- AVOCATIONAL

BOSTON AREA (CONTINUED)

DR	Central Square Auto School East Boston
DR	Cleary Auto School Hyde Park
DR	Cleveland Circle Auto School Cambridge
DR	Cleveland Circle Auto School Brookline
DR	Cleveland Circle Auto School Newton
SI	College House Study Center Cambridge
M	Community Music Center of Boston Boston
D	Dance Arts Studio Somerville
D	Daurice School of Dancing Hyde Park
SI	DaVinci Schools of New England Cambridge
PA	Gertrude Dolan Theatrical Studios Jamaica Plain
D	Dolores Dancing School Hyde Park
L	Ecole Bilingue Belmont
DR	East Boston Auto School East Boston
SI	Evelyn Wood Reading Dynamics Boston
A	Exploring the Arts Needham
DR	Fairview Driver School Jamaica Plain
PA	Film School - Orson Welles Cambridge
DR	Field's Corner Driving School Dorchester
D	Mary French Dance Studio Wellesley
DR	Garbers Auto Schools Brookline
DR	Garbers Auto Schools Mattapan
DR	Garbers Auto Schools Newton
DR	Garbers Auto Schools Roxbury
DR	Garbers Auto Schools Waltham
SE	Habitat, Inc. Belmont
D	Esther Doyle Hansen School of Dance Cambridge
DR	Highland Auto School Somerville
SI	Hillcrest School, Inc. Brookline
L	Homer School of Greek Roslindale
M	Ingo Conservatory of Music Boston
SD	Institute of Okinowan Karate Quincy
S	Joan A. Fucci Sewing Studio Watertown
D	Joy of Movement Center Cambridge

PROPRIETARY & INDEPENDENT NON-PROFIT SCHOOLS -- AVOCATIONAL

BOSTON AREA (CONTINUED)

DR	Joyce Auto School Brighton
M	Kodaly Music Training Institute Wellesley
D	Lenza Sisters School of Dance Waltham
M	Longy School of Music Cambridge
M	Malden School of Music Malden
D	Maryanne's School of Dance Dorchester
SD	Mattson Academy of Karate Boston
SD	Mattson Academy of Karate Arlington
SD	Mattson Academy of Karate Norwood
SD	Merrimack Valley Karate Assn. Boston
D	Adrienne Miller Dancing School Cambridge
SE	Silva Mind Control Newton
SE	Mind Dynamics of Boston Boston
D	Movement Laboratory, Inc. Boston
SD	N.E. China Martial Arts Association Boston
SE	New England School of Astrology Arlington
DR	North River Auto Driving School Scituate
A	Nu-Life Ceramic Studio and Supply Hyde Park
DR	OIC Auto Skills Center Roxbury
DR	O'Neils Auto School Arlington
D	Jean Paige School of Dance Brookline
D	Paulette's Ballet Studio Needham
DR	Pleasant Auto Schools Revere
DR	Pleasant Auto Schools Boston
DR	Pleasant Auto Schools Hyde Park
DR	Pleasant Auto Schools Somerville
SE	Psychomotor Institute Boston
M	Pulsifer School of Music Newton
SI	Reading Institute, Inc. Boston
D	Reven Dance Arts Studio Roslindale
D	Adolphe Robicheau Ballet Academy Waltham
D	Rui Rosa School of Dancing Boston

PROPRIETARY & INDEPENDENT NON-PROFIT SCHOOLS -- AVOCATIONAL

BOSTON AREA (CONTINUED)

DR Rusty's Auto School
Roxbury

N School of Contemporary Music
Brookline

SE Scientology of Cambridge
Cambridge

N South Shore Conservatory of Music
Hingham

L Sullivan Language Schools
Boston

PA Theatre Two Acting Workshop
Boston

DR Thompson Bros. Auto School
Arlington

DR Town & Country Auto Driving Schools
Weymouth

SE Uni Miriam Self Enrichment
Newton

SD United Tai Kwon Do Federation, Inc.
Boston

DR W. Roxbury Auto School
W. Roxbury

D E. Williams School of the Dance
Melrose

G Academy of Physical and Social
Development
Newton

LICENSED PRIVATE CORRESPONDENCE SCHOOLS IN MASSACHUSETTS

Berklee Press Publications
1140 Boylston St.
Boston

Computer Professions Education, Inc.
14 Beacon St.
Boston

Cross Academy
70 Madison St.
Worcester

Education for Management
335 Western Ave.
Brighton

Framingham Civil Service School
535 Worcester Rd.
Framingham

Hall Institute of Real Estate
341 Washington St. (Rt. 53)
Norwell, Mass.

Hewlett-Packard Company
175 Wyman St.
Waltham, Mass.

Lacy Sales Institute
80 Union St.
Newton Centre, Mass.

Lee Institute
310 Harvard St.
Brookline

Nantucket School of Needlery
2 India St.
Nantucket Island

National Preparatory Institute
338 Sweetsar Terrace
Lynn

New England School for Investigation
123 Highland Ave.
Needham Heights

Radio Electronics Television School
965 Commonwealth Ave.
Boston

Sales Training of Boston
824 Boylston St.
Brookline

The School of Professional Drafting
c/o Stephen Wolfberg, Esq.
28 State St.
Boston

UNCLASSIFIED SCHOOLS

Due to insufficient information, the following schools have not yet been classified by type

Avon College
Cambridge

Mary Brooks School
Boston

Cades CPA School
Boston

Donohue Civil Service School
Boston

Farr Academy
Cambridge

Full Circle School
Somerville

Griffith School of Speech
Somerville

Jacqueline Enterprises
Canton

Lambers-CADE CPA School
Boston

Living and Learning Schools
Woburn

Modern School of Fashion Design
Boston

Nasson College
Springfield

Stenotype of Boston
Boston

Suburban Business Schools, Inc.
S. Lynnfield

TAD Institute
Beverly

Travel School of America
Brookline

Gillis Business School
Norwood

Automation Institute
Boston

Comptometer Institute
Boston

Nathaniel Hawthorne College

Career Educational Training Center
Worcester

Ward Business School
Worcester

School of Medical Technology
Pittsfield

Amity College
Gardner

Conway School of Landscape Design
Concord

Professional School of Broadcasting
Springfield

Western Mass. Broadcasting School
Agawam

Boston Training Academy
Springfield

Business Education Institute
W. Springfield

School for Creative Learning
Sharon

A-1 Model Information
Boston

Academy of Physical and Social
Development
Newton

Miss Allen Back Bay Finishing
School and Agency
Boston

Dot Le Mayo School of Charm and
Modeling
Attleboro

UNCLASSIFIED SCHOOLS (CONT'D)

Fashion Signatures
Brookline & Waltham

Feminique Finishing and Modeling School
W. Roxbury

Juliet Gibson Professional School for Women
Boston

Magnifique Modeling Agency
Brookline

Rogers Models
Boston

Lamore Modeling Agency and Studio
Worcester

Betty Goodman's Models Workshop
Brookline

Grad's Charm and Modeling School

Fashion Model Associates
Marlborough

Dorothy Caterino Fashion Models &
Charm

Debby Conroy Charm and Modeling School
Lowell

Elegante Charm and Modeling School
Lowell

Gloria and Mayo School of Charm and
Modeling
Winthrop

III.B. GEOGRAPHIC DISTRIBUTION OF VOCATIONAL SCHOOLS

Proprietary Schools-Vocational

Independent Non-Profit Schools-Vocational

Vocational-Technical Schools and Other Public Postsecondary Schools

Community Colleges

Institutions Other Than Community Colleges Which Grant Associate Degrees

The following maps show the locations of institutions across the State of Massachusetts.

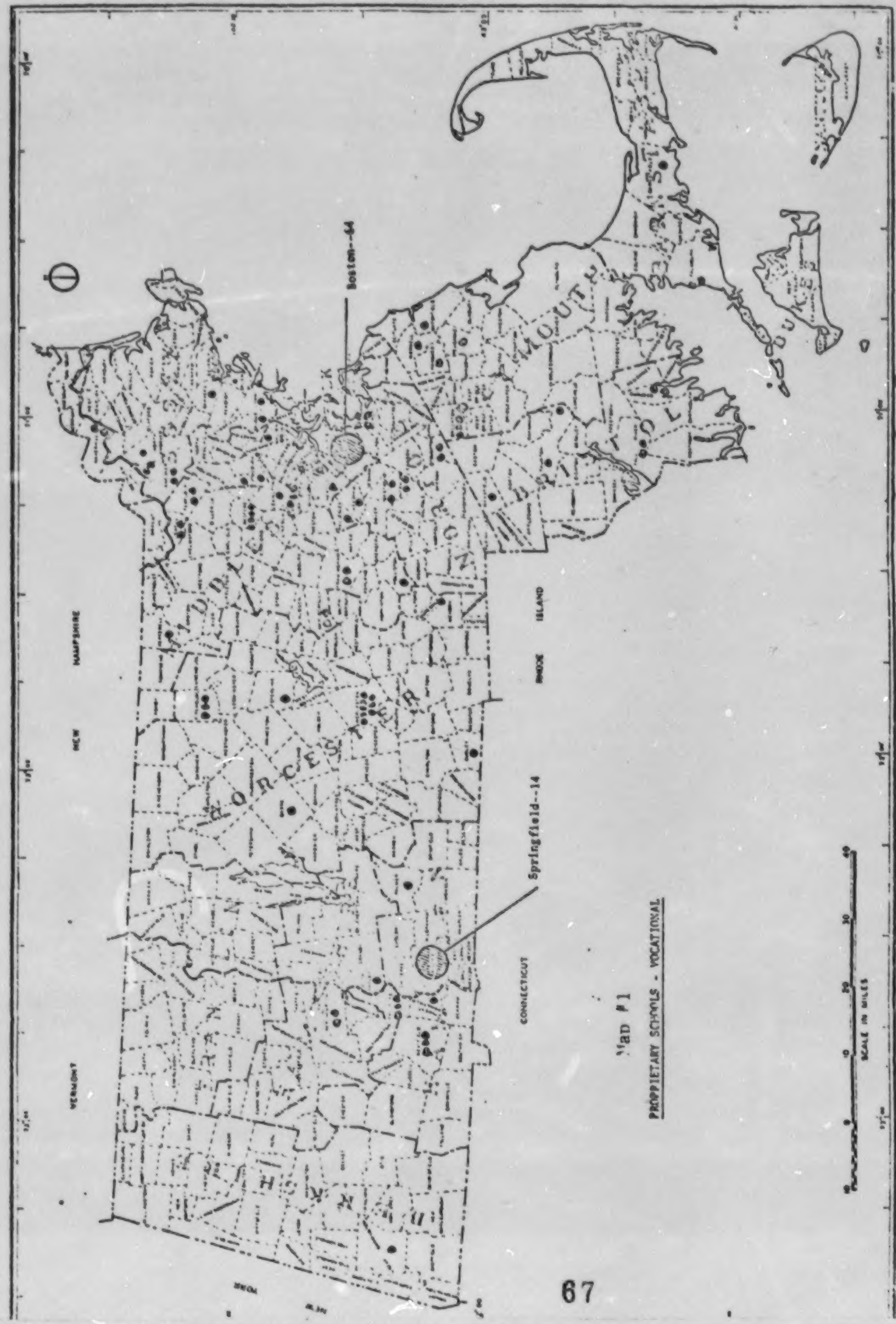
Map #1 shows the distribution of vocational proprietary schools. These institutions are clearly concentrated in the metropolitan areas, particularly Boston. This concentration may be explained by several factors. First, competition from public institutions has until recently been minimal in the Boston area. Secondly, some specialty schools such as florist and cooking schools must be in large centers of population to draw enough students.

Map #2 shows the distribution of independent non-profit schools. These schools are mainly in nursing and other medical subjects and are found to be even more concentrated in metropolitan areas.

Map #3 shows the distribution of public regional vocational-technical schools and other public schools with postsecondary programs. They appear to be randomly spread across the State, and significantly not concentrated in Boston.

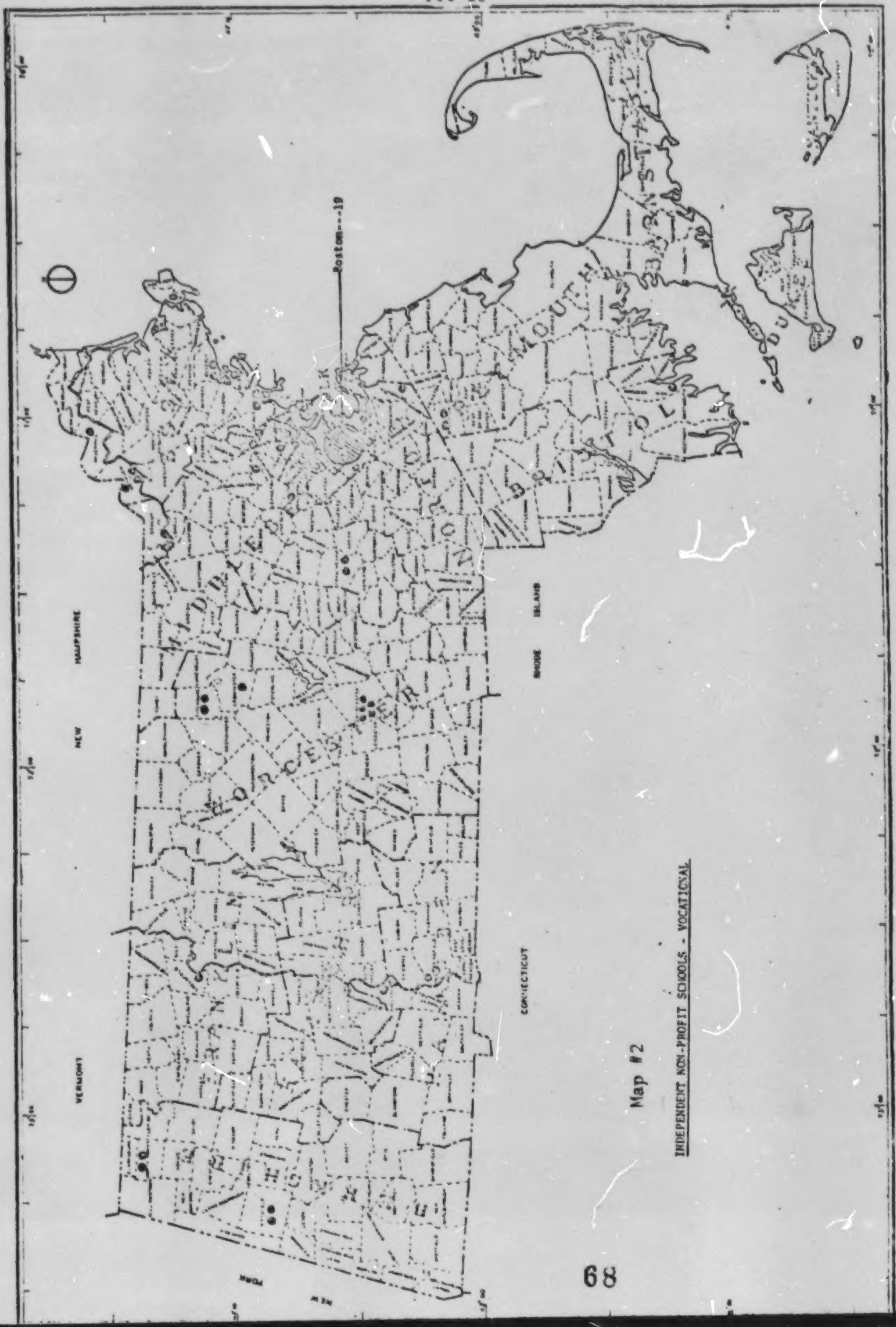
Map #4 shows the distribution of community colleges. They are geographically distributed across the State to provide access for all centers of population.

Map #5 shows the distribution of institutions other than community colleges which grant Associate degrees. They are concentrated in metropolitan areas where private institutions have typically operated.



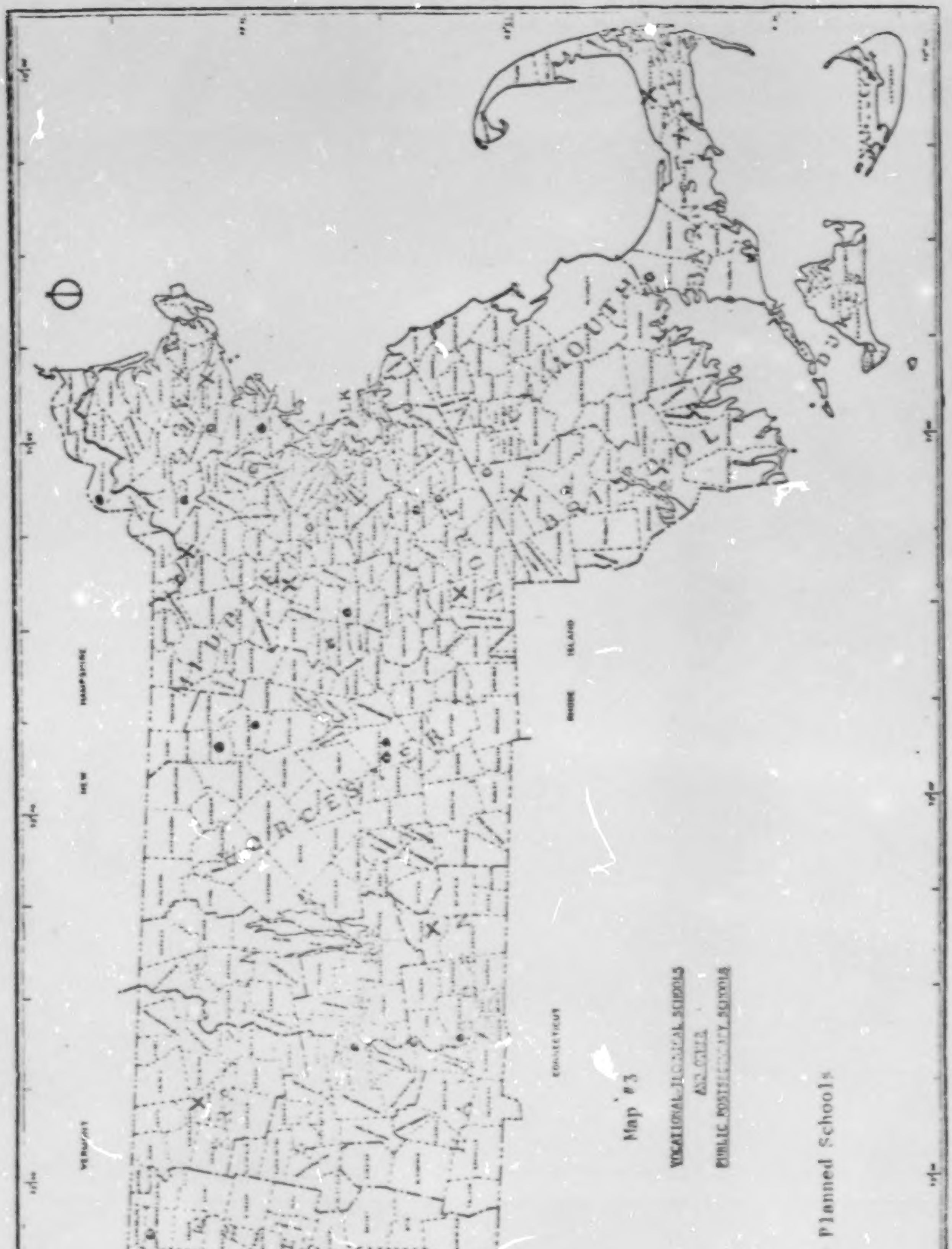
Map #1

PROPRIETARY SCHOOLS - VOCATIONAL



Map #2

INDEPENDENT NON-PROFIT SCHOOLS - VOCATIONAL



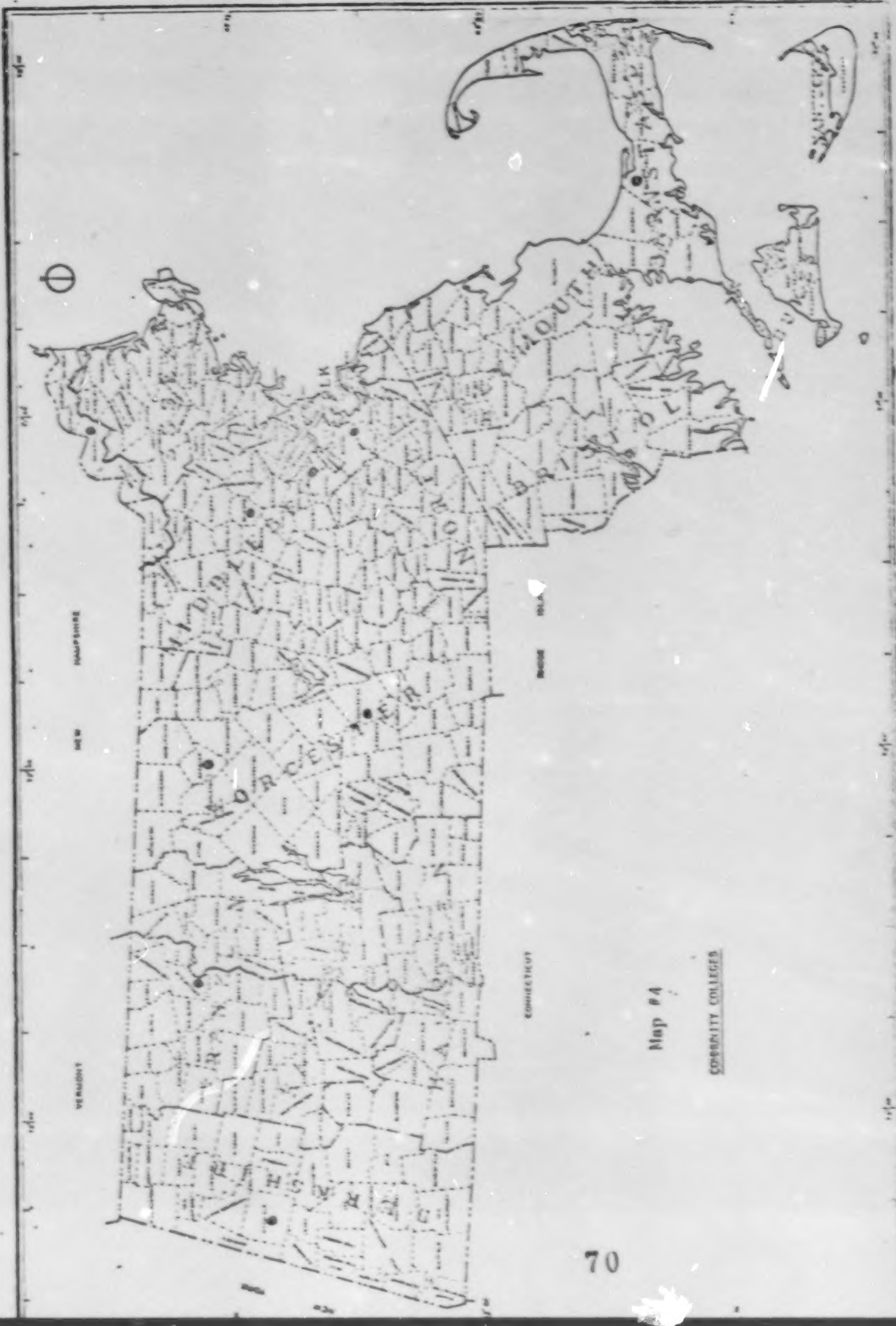
Map #3

VOCATIONAL TECHNICAL SCHOOLS

AND OTHER

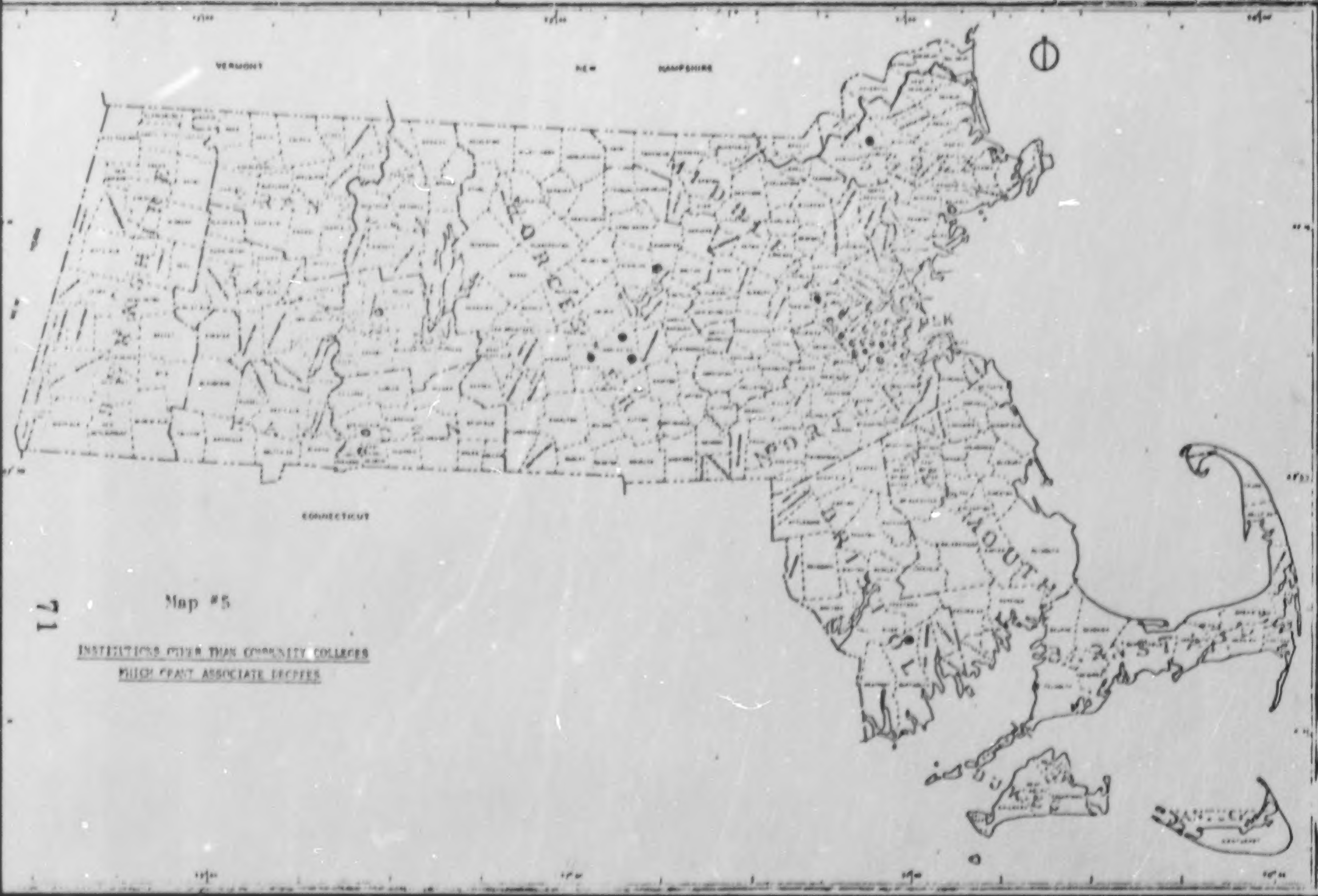
PUBLIC POSTSECONDARY SCHOOLS

X = Planned Schools



Map #4

COMMUNITY COLLEGES



Map #5

INSTITUTIONS OTHER THAN COMMUNITY COLLEGES
WHICH GRANT ASSOCIATE DEGREES

III.C. INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS

Inventories of postsecondary level vocational programs offered in 1972-73 have been prepared for proprietary schools, independent non-profit schools, vocational/technical institutes and other public schools offering postsecondary programs, community colleges, and other degree-granting institutions for each of thirteen geographic service areas across the State. Programs are keyed as leading to an associate degree, diploma, or certificate: some proprietary business schools which have closed are noted as well as new voc/tech institutes planned to open; planned programs in community colleges are indicated by an asterisk; and proprietary cosmetology schools under contract with public high schools are footnoted.

The following conclusions may be drawn from the inventories by type of institution:

Proprietary schools specialize primarily in one of the following areas: business and commerce, trade and technical, cosmetology and flight schools, while non-profit schools are primarily in health services. ✓ In general, they offer only one or two specialties.

Voc/tech institutes and other public school programs are primarily in health services and trade and technical areas, to a lesser extent in business areas.

Community colleges offer a comprehensive set of programs across all subject areas. Exceptions to their coverage are: real estate, travel and modeling, cosmetology, and flight. They are the only institutions which offer public service programs (law enforcement, fire science, and others).

Other degree-granting institutions offer programs across most subject areas, but within each area are less comprehensive than community colleges.

The following conclusions may be drawn by subject area:

Business subjects are covered primarily by proprietary schools, community colleges, and other degree-granting institutions. Some subjects such as real estate and travel and modeling have been offered only by proprietary schools, although Bunker Hill Community College is planning a real estate program.

Trade and technical subjects are covered by proprietary schools, voc/tech institutes, and community colleges. Proprietary schools are somewhat more likely to cover art, fashion, cooking, and floral design courses than are public schools in each area.

Health services are covered by independent non-profit schools, voc/tech institutes, community, and other degree-granting institutions.

Cosmetology and flight courses are primarily in the proprietary schools, although some voc/tech institutes have programs in cosmetology and Springfield Tech. CC is planning an associates' degree program.

Public service courses such as fire safety and law enforcement are almost entirely in the community colleges.

Proprietary schools operate in a number of special programs included under other: bartending, tractor trailer driving, electrology, optical technology. These are one-of-a-kind schools.

Community colleges offer a variety of new or more specialized fields: child care, recreation and leadership, nursing home administration, bio-medical instrumentation, etc.

The following conclusions may be drawn by geographic area:

Each area has a mix of proprietary, independent non-profit, voc/tech, community college, and other schools.

Community colleges offer a wide variety of courses within each area, while other schools generally specialize in one or two subjects.

Boston has the greatest diversity of programs in the proprietary school sector and 3 community colleges (2 new, just this year) are beginning to compete with these programs. Other degree-granting institutions also have a wide variety of programs in the Boston area.

The following conclusions may be drawn by type of certification:

Proprietary schools and independent non-profit schools offer diplomas and certificates; voc/tech institutes offer certificates. Community colleges and other degree-granting institutions generally grant associate degrees, although they have some certificate programs.

Blue Hills Regional Technical Institute now offers the associate degree in 4 areas.

Proprietary schools with two year programs may now apply to the Board of Higher Education for degree-granting status.

Examples of coordination are:

Public schools in several cases contract for use of facilities of proprietary cosmetology schools.

Voc/tech institutes and community colleges cooperate in facilities sharing--generally use of better facilities at the voc/techs.

EXPLANATION OF PROGRAM INVENTORY TABLES

Diploma vs. Certificate

According to the Department of Education, there is very little distinction between a Diploma and a Certificate. In the past, Certificates were awarded for successful completion of programs lasting one year or less and Diplomas for programs lasting two years. Today, there is virtually no difference. For example, the Lee Institute of Real Estate which offers a 10 to 15 class hour course, awards a diploma; and the R.E.T.S. Electronics School which offers a two year program, awards a certificate. Thus, when reading the program inventory tables, "Diploma" and "Certificate" can be considered to be synonomous.

Included under "Other" Business and Commerce

Hotel and Lodging
Marketing
General Merchandise
Court Reporting

Included under "Other"

Apparel and Accessories
Environmental Health Assistant
Medical Records Technology
Bio-Medical Instrumentation
Respiratory Inhalation Therapy
Mental Health Technician
Rehabilitation Assistant
Medical Laboratory Assisting
Inhalation Therapy
Nursing Home Administrator
Child Care
Communications
Public Administration
Human Services
Recreation and Leadership
Teacher Aide
Library Science
Agricultural Mechanics
Agricultural Production
Agricultural Resources
Animal Science
Natural Resources
Turf Management
Bartending
Tractor Trailer Driving
Electrology
Optical Technology

Planned Programs - indicated by *

INVENTORY OF PROGRAMS

Inventory Of Postsecondary Level Vocational Programs Offered In 1972-73 In Proprietary, Non-Profit And Public Institutions

Springfield Area

Pittsfield/North Adams Area

Amherst/Northampton Area

Fitchburg/Gardner Area

Worcester Area

Framingham Area

Lynn/Salem Area

Andover/Lowell Area

Burlington/Bedford Area

Fall River/New Bedford Area

Brockton Area

Falmouth/Barnstable Area

Boston Area

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Springfield Area

KEY

A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modeling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (includes Barber)	FLIGHT	PUBLIC SERVICE	OTHER
PROPRIETARY SCHOOLS																		
Broms Acad. of Hairdressing(Hol															C			
Holyoke Business School	D																	
Real Estate Salesman's School				D														
Roberts Aviation															C			
P. Cassassa Real Estate School				D														
Allied Construction Trng. Corp.								D										
Brom's Barber School (Sp)															C			
Grogan Real Estate School				D														
Le Baron Hairdressing School															C			
Central Travel School						D												
Bartending Sch. of Mixology																		D
C. Russell Sch. of Charm/Model.						D												
Mansfield Acad. Beauty Culture															C			
Smith & Wesson Academy																		C
Sadak & Lukas Real Estate Sch.				D														
Thomas Real Estate School				D														
United Tech. Schools									D									
Sidney Baron Real Estate School				D														
Barnes Aviation, Inc.															C			
East. Atlantic Heavy Equip. Trng								D										
Business Ed. Institute	D		D															
Vocational Ed & Trng Corp																		C
American Vocational Training								D										
INDEPENDENT NON-PROFIT SCHOOLS																		
Holyoke Hosp Sch of Nursing												D						
Prov. Hosp Sch of X-Ray														D				
Mercy Hosp Sch of X-Ray														D				
Springfield Hosp Med Ctr S of N												D						
Western Mass. Schl. for PN												C						
VOC/TECH INSTITUTES AND OTHER PUBLIC SCHOOLS OFFERING POSTSECONDARY PROGRAMS																		
Holyoke Trade High School												C						
Roger L. Putnam Voc-Tech H.S.												C			C			
COMMUNITY COLLEGES																		
Holyoke Community College	A	A	A		A		A		A			A		A			A	A
Springfield Tech. Comm. College	A	A	A		A		A		A	A		A	C,A	C,A	C,A*		A	A
OTHER																		
American International College					A									C				
Bay Path Junior College	A				A							A						A

Planned:
Pathfinder Regional Voc/Tech,

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Pittsfield/North Adams Area

KEY
A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modeling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (Includes Barber)	FLIGHT	PUBLIC SERVICE	OTHER
PROPRIETARY SCHOOLS																		
Miller Airport Sch. of Aviation																C		
Berkshire Aviation Enterprises																C		
INDEPENDENT NON-PROFIT SCHOOLS																		
N. Adams Hosp Sch of X-Ray														D				
N. Adams Hosp Sch of Anesthesia												D						
Berkshire Hosp Sch of Anesthesia												D						
St. Lukes Hosp Sch. of Nursing												D						
VOC/TECH INSTITUTES AND OTHER PUBLIC SCHOOLS OFFERING POSTSECONDARY PROGRAMS																		
C.H. McCann Regional Tech. Inst									C			C	C	C	C			
Pittsfield Vocational High Schl												C						
COMMUNITY COLLEGES																		
Berkshire Community College	A	A	A		A		A		A	A		A					A	A

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS
OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Amherst/Northampton Area

KEY
A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modelling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (includes Barber)	FLIGHT	PUBLIC SERVICE	OTHER
PROPRIETARY SCHOOLS																		
City Aviation, Inc.																C		
Conley-Dickinson Hosp. X-Ray Sch														D				
Franklin Airways																C		
INDEPENDENT NON-PROFIT SCHOOLS																		
Franklin Count. Pub Hosp S of X														D				
VOC/TECH INSTITUTES AND OTHER PUBLIC SCHOOLS OFFERING POSTSECONDARY PROGRAMS																		
Smith's Vocational & Agr. H.S.												C						
COMMUNITY COLLEGES																		
Greenfield Community College	A	A	A		A				A	A		A					A	[illegible]
OTHER																		
University of Massachusetts																		[illegible]

Planned:

Franklin County Regional Voc./Tech.

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS
OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Fitchburg/Gardner Area

KEY

A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modelling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (Includes Barber)	FLIGHT	PUBLIC SERVICE	OTHER
PROPRIETARY SCHOOLS																		
Fitchburg Aviation, Inc.																C		
Henri's Schl. of Hair Design															C			
Hunter Aviation Corp.																C		
INDEPENDENT NON-PROFIT SCHOOLS																		
Burbank Hosp Sch of Nursing												D						
Burbank Hosp Sch of X-Ray														D				
Leominster Hosp Sch of Nursing												D						
VOC/TECH INSTITUTES AND OTHER PUBLIC SCHOOLS OFFERING POSTSECONDARY PROGRAMS																		
Leominster Vocational High Schl									C			C						
Montachusett Reg. Tech. Inst.												C	C					
COMMUNITY COLLEGES																		
Mt. Wachusett CC	A	A	A		A		A		A			A					A	A

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Worcester Area

KEY

A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modeling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (Includes Barber)	FLIGHT	PUBLIC SERVICE	OTHER
PROPRIETARY SCHOOLS																		
Dudley Hall Career Inst.	D				D													
Hopedale Airways, Inc.																C		
Broms Acad. of Hairdressing															C			
Broms Barber School															C			
Cross Academy								D										
Electr. Computer Prog. Inst.			D															
Leo's Beauty Academy															C			
Salter Secretarial School	D						D											
State Realty Institute				D														
Sterling Aviation																C		
Vitek (Air Worcester)																C		
INDEPENDENT NON-PROFIT SCHOOLS																		
Mem Hosp Sch of Nursing												D						
N.E. Sch of Accounting		D																
St. Vincent Hosp Sch of X-Ray														D				
St. Vincent Hosp Sch of Nursing												D						
Worc. Hahnemann Hosp S of Nursing												D						
VOC/TECH INSTITUTES AND OTHER PUBLIC SCHOOLS OFFERING POSTSECONDARY PROGRAMS																		
Worcester D.H. Fanning Trade H.S.												C	C	C	C			
Worcester Industrial-Tech. Inst.			C					C	C									
COMMUNITY COLLEGES																		
Quinsigamond Community College	A	A	A		A		A		A			A		A			A	A
OTHER																		
Atlantic Union College	A,C											A						
Becker Junior College	A				A					A								
Leicester Junior College					A													
Worcester Junior College		A,C	A	AC	A,C		A C,D		A							A		

Closed:

Ward Secretarial

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Framingham Area

KEY

A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modeling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (Includes Barber)	FLIGHT	PUBLIC SERVICE	OTHER
PROPRIETARY SCHOOLS																		
Kenneth Hair Design															C			
Optician's Schl. of Framingham																		D
New Engl. Educational Center	D				D		D											
Marlboro Hosp. Schl. of Nursing												D						
Don's Flying Service																C		
INDEPENDENT NON-PROFIT SCHOOLS																		
Fram. Union Hosp Sch of X-Ray														D				
Fram. Union Hosp Sch of Nursing												D						
VOC/TECH INSTITUTES AND OTHER PUBLIC SCHOOLS OFFERING POSTSECONDARY PROGRAMS																		
Assabet Valley Reg.Voc-Tech Sch												C	C					
So. Middlesex Reg. Voc-Tech Sch												C						

Closed:

Suburban-Business School

Planned:

Tri-County Regional Voc./Tech.

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS
OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Lynn/Salem Area

KEY

A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modeling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygienist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (Includes Barber)	FLIGHT	PUBLIC SERVICE	OTHER
PROPRIETARY SCHOOLS																		
Essex County Education Ctr.				D														
Instrument Flight Training																C		
N.E. Flyers Air Service																C		
N.E. Schl. of Real Estate				D														
East Coast Tractor Trailer																		C
Continental Beauty Academy															C			
Melrose Beauty Academy (1)															C			
Mansfield Acad. of Beauty Cult.															C			
Saugus Gen. Hosp. Schl. of X-Ray														D				
Marian Court Secre. School	D																	
North Atlantic Airways																C		
INDEPENDENT NON-PROFIT SCHOOLS																		
Beverly Hosp Sch of Nursing												D						
Beverly Hosp Sch of X-Ray														D				
Addison-Gilbert Ho Sch of X-Ray														D				
Lynn Hosp Sch of Nursing												D						
Lynn Hosp Sch. of X-Ray														D				
Union Hosp Sch of X-Ray														D				
Melrose Wakefield Ho Sch of X														D				
Salem Hosp Schl of Nursing												D						
Salem Hosp Schl of X-Ray														D				
VOC/TECH INSTITUTES AND OTHER PUBLIC SCHOOLS OFFERING POSTSECONDARY PROGRAMS																		
Lynn Vocational-Technical Inst.			C						C				C					
Northeast Met.Reg.Tech.Inst.			C									C		C				
COMMUNITY COLLEGES																		
North Shore CC	A	A	A		A		A		A	A*	A	A		A		A	A	A
OTHER																		
Endicott Junior College	A						A		A	A		A						A

~~Closed~~

Salem Commercial College
Andover Institute of Business
Burdett College

Planned:

North Shore Regional Voc./Tech.

(1) On contract with Melrose High School.

INVENTOPY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS
OFFEPED IN 1972-73 IN PROPRIETARY NON-PROFIT AND PUBLIC INSTITUTIONS

Andover/Lowell Area

KEY

A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE					
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modeling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (Includes Barber)	FLIGHT	PUBLIC SERVIC	OTH
PROPRIETARY SCHOOLS																		
Andover Schl. of Business	D	D	D		D		D											
Andover Tractor Trailer Schl.																		C
LeBaron Acad. of Hairdressing															C			
M. Catio Inst. of Beauty Cult.															C			
Michael's Schl. of Hair Design															C			
Lowell Acad. of Hairdressing															C			
Solari Schl. of Hair Design															C			
Four Star Aviation																C		
Tew Mac Aviation, Inc.																C		
Tewksbury Hosp. Schl of Nursing												D						
Dutton Flying Service																C		
B.B. Airways																C		
INDEPENDENT NON-PROFIT SCHOOLS																		
Haverhill Munic Hosp Sch of X-R														D				
Lawrence Gen Hosp Sch of Nursing												D						
Lawrence Gen Hosp Sch of X-Ray														D				
Lowell Gen Hosp Schl of Nursing												D						
Lowell Gen Hosp Sch of X-Ray														D				
St. John's Hosp Sch of X-Ray														D				
Bon Secours Hosp Sch of X-Ray														D				
VOC/TECH INSTITUTES AND OTHER PUBLIC SCHOOLS OFFERING POSTSECONDARY PROGRAMS																		
Essex Agr. & Technical Inst.							C				C	C		C	C			
Greater Lawrence Reg. Tech. Inst.			C					C	C	C	C	C			C			
Lowell Trade High School												C						
Whittier Reg. Voc-Tech School			C									C	C					
COMMUNITY COLLEGES																		
Northern Essex CC	A	A	A		A				A		A	A					A	
OTHER																		
Merrimack College					A				A									

Closed:
Lowell Commercial School
Bryant McIntosh

Planned:
Greater Lowell Regional Voc/Tech

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS
OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Burlington/Bedford Area

KEY
A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modeling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (Includes Barber)	FLIGHT	PUBLIC SERVICE	OTHER
PROPRIETARY SCHOOLS																		
Aero Progress, Inc.																C		
Conerford Flight School																C		
Inst. Flyers Aviation Acad.																C		
Technical Aero Service																C		
Control Data Institute									D									
East Coast Aero Tech. Inst.									D									
Woburn Business School	D																	
INDEPENDENT NON-PROFIT SCHOOLS																		
Chas. Choate Mem H.S. of X-Ray														D				
N.E. Mem Hosp Sch of X-Ray														D				
COMMUNITY COLLEGES																		
Middlesex CC	A	A			A		A					A	A	A			A	C,A

Planned:

Minuteman Regional Voc/Tech

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Fall River/New Bedford Area

KEY

A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modeling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (Includes Barber)	FLIGHT	PUBLIC SERVICE	Other
PROPRIETARY SCHOOLS																		
Fall River Acad. of Beau. Cul①															C			
Union Hosp. Schl. of X-Ray Tech														D				
La Baron Hairdressing Acad.															C			
New Bedford Beauty Acad.															C			
Taunton Beauty Acad.															C			
INDEPENDENT NON-PROFIT SCHOOLS																		
Kinyon and Campbell Bus. Schl	D																	
VOC/TECH INSTITUTES AND OTHER PUBLIC SCHOOLS OFFERING POSTSECONDARY PROGRAMS																		
Bristol-Plym. Reg.Voc-Tech.H.S.			C									C	C					
Diman Regional Technical Inst.	C		C						C			C	C					
Southeastern Reg. Tech. Inst.			C						C			C	C					
COMMUNITY COLLEGES																		
Bristol CC	A	A	A		A		A		A			A					A	A
OTHER																		
Southeastern Mass. Univer.							A											

Closed:
Campbell Business School

Planned:
Fall River Girls Vocational High School
Greater New Bedford Regional Voc/Tech.

① On contract with Fall River School System.

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS
OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Brockton Area

KEY
A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modeling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygienist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (Includes Barber)	FLIGHT	PUBLIC SERVICE	OTHER
PROPRIETARY SCHOOLS																		
Brockton Acad. of Beauty Cul.															C			
La Baron Hairdressing Acad.															C			
Old Colony Trade School								D										
King Aviation Service																C		
House of Realty R.E. School				D														
Carleton Whitney Aero Service																C		
Aviation Career Institute							D									D		
Norwood Hosp. Sch. of X-Ray														D				
Wiggins Airways																C		
Chandler Schl. of Welding								D										
Goddard Mem. Hosp. Sch of X-Ray														D				
N.E. Institute of Real Estate				D														
Marshfield Aviation																C		
Hall Institute of Real Estate				D														
INDEPENDENT NON-PROFIT SCHOOLS																		
Brockton Hosp Sch of Nursing												[illegible]						
Pondville Hosp Sch of PN												C						
South Shore Hosp Sch of X-Ray														D				
VOC/TECH. INSTITUTES AND OTHER PUBLIC SCHOOLS OFFERING POSTSECONDARY PROGRAMS																		
Blue Hills Reg. Tech. Institute			A,C						A,C	A,C			C					A,
Henry O. Peabody School	C						C				C				C			
COMMUNITY COLLEGES																		
Massasoit CC	A	A			A				A			A	A*	A*			A	A
OTHER																		
Dean Junior College	A				A		A						A					

Closed:
Andover Institute of Business

Planned:
Old Colony Regional Voc/Tech

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS OFFERED IN 1972-73 IN PROPRIETERY, NON-PROFIT AND PUBLIC INSTITUTIONS

Falmouth/Barnstable Area

KEY

A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modeling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (includes Barber)	FLIGHT	PUBLIC SERVICE	OTHER
PROPRIETARY SCHOOLS																		
Willis Flying Service																C		
Sullivan R.E. School				D														
VOC/TECH INSTITUTES AND OTHER PUBLIC SCHOOLS OFFERING POSTSECONDARY PROGRAMS																		
Upper Cape Cod Reg. Voc-Tech H.S.												C	C					
COMMUNITY COLLEGES																		
Cape Cod CC	A	A	A*		A		A		A*			A					C*	

Closed:

Cape Cod Secretarial

Planned:

Cape Cod Regional Voc/Tech

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INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Boston Area (Page 1)

KEY

A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE				
PROPRIETARY SCHOOLS	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modeling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygienist	Medical & Dental Assisting	Medical & X-Ray Tech.	Cosmetology (Includes Barber)	Flight
Jean Cappy, Inc. ①															C	
Academie Moderne						D										
Barbizon Schl. of Modeling						D										
Bay State J.C. of Business	D	D	D		D											
Boston City Hosp. Sch. of Nurs.												D				
Bryant-Stratton Comm. School	D	D	D		D				D	D						D
Burdett School	C						C									
Career Academy													C			
Andover Institute of Bus.	D	D	D		D		D									
Carol Kashe School						D										
Chandler Schl. for Women	D															
Children's Hosp. Med. Ctr.												D				
Coyne Elec. & Tech. Schl.									D							
Copley Secretarial Institute	D,C															
Dale Acad. of Hairdressing													C			
Eleanor Roberts Sch. of Electrology																
Elec. Comp. Prog. Institute			D													
Emery School							D									
Farmer's School of Cookery											D					
Hickox Secretarial School	D															
The Insurance School							C									
ITT Technical Institute									D				D			
John Robert Powers Finishing S						D										
Miss Kelly's Sch. of Electrolo																
Katherine Gibbs School	D															
License Exam School				C												
Management Develop. Inst.							C									
Mansfield Acad. of Beauty Cul.															C	
Marshall Jenkins Schl. for Sec.	D															
Mass. Gen. Hosp. Schl. for Rad.														D		
Mass. Radio and Electronic Schl									D							
Mass. Schl. of Barbering															C	
Modern Gourmet School											D					
N.E. Appliance Service Schl.								D								
N.E. Barber College															C	
N.E. School of Art										D						
N.E. Schl. of Mech. Dentistry							D									
N.E. Schl. of Steam Engin.									D							
Northeast Broadcasting Schl.							D									
Paul School of Marine Engineerin									D							

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(1) On contract with Watertown High School

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS
OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Boston Area (Page 2)

KEY

A=Associate Degree
D=Diploma
C=Certificate

PROPRIETARY SCHOOLS CONT.	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modelling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (Includes Barber)	FLIGHT	PUBLIC SERVICE	OTHER
Patricia Stevens School	D					D	D			D								
Peterson's Schl./Stm.Engin.									D									
R.E.T.S. Electronic School									D									
Pittners School of Floral Desig											D							
Prof. Bartenders School																		D
Schl. of Medical Photography										C								
Schl. of Medical Illustration										C								
Art Institute of Boston										D								
Touch Shorthand Academy	D																	
United Technical Institute									D									
Univer. Hosp. Schl. of X-Ray														D				
Vesper George Schl. of Art										D								
Wilfred Academy															C			
Willett Institute of Finance							C											
Camb. Schl. of Plumb Layout&Des								D										
Leland Powers School							D											D
Lee Institute of Real Estate				D														
DiAnthony Schl. of Cosmetology															C			
Cambridge City Hosp S of X-Ray														D				
N.E. Fuel INST Tech Training									D									
N.E. School o[illegible]hotog.										D								
Imageworks (Ctr. for Vis. Stud)										D								
Beauty Creators Sch of H.D.															C			
ITT Technical Inst(chelsea)									D									
Neponsit Cir Schl. of Welding								D										
Solari Schl. of Hair Design															C			
Tech-Age Schl of Malden	D	D	D		D													
Glover Mem Hosp Sch of X-Ray														D				
Lacy Sales Institute							D											
Hanover Beauty Acad															C			
Mansfield Acad of Beauty Cult															C			
N.E. Tractor Trailer Inst																		
Quincy Beauty Acad.															C			
Boston Business Schl.																		
LaNewton Sch of Beauty Cult															C			
American R.E. Academy				D														
Robert Pritchard Beauty Acad.															C			
Sylvania Tech Schl									D									
Henry I. Simmons School											D							

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Boston Area (Page 3)

KEY
A=Associate Degree
D=Diploma
C=Certificate

PROPRIETARY SCHOOLS CONT.

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modelling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (includes Barber)	FLIGHT	PUBLIC SERVICE	OTH
Allied Tractor Trailer																		
Debonaire Acad of Beau Cult															C			
La Parisienne Beau Acad															C			
Bryman Medix School	C												C					
Associated Technical Institute									D									
Career Training Institute	D		D															
Court and Legal Steno. Institut	C																	

INDEPENDENT NON-PROFIT SCHOOLS

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modelling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (includes Barber)	FLIGHT	PUBLIC SERVICE	OTH
Art Institute of Boston										D								
Beth Israel Hos Sch for Dent A.													C					
Boston City Hosp Sch of X-Ray														D				
Butera Sch of Art										D								
Carnegie Inst Med School													C					
Carney Hosp Sch of Anesthesia												D						
Chamberlayne Sch of Retailing							D											
Faulkner Hosp Sch of Nursing												D						
Faulkner Hosp Sch of X-Ray														D				
Forsythe Sch for Dent Hygn.												D						
Mass. Gen Hosp Sch of Nursing												D						
N.E. Deaconess Hosp Sch of Nurs												D						
N.E. Med. Ctr. Sch of X-Ray														D				
Northeast Inst. of Indust. Tech									D									
Peter B. Brigham Hosp Sch of N												D						
Peter B. Brigham Hosp Sch of X														D				
School of Fashion Design										D								
Shepard Gill Schl of PN												C						
V.A. Hospital												D						
St. Eliz. Hosp. Sch. of Nursing												D						
St. Eliz Hosp sch of X-Ray														D				
Mt. Auburn Hosp Sch for Nursing												D						
Youville Hosp Sch for Nursing												D						
Soldiers Home Sch for PN												C						
Whidden Mem Hosp Sch of Nursing												D						
Lemuel Shattuck Hosp Sch of PN												C						
Malden Hosp Sch of Nursing												D						
Malden Hosp Sch of X-Ray														D				
Lawrence Mem Hosp. Sch of Nursing												D						
Milton Hosp Sch of X-Ray Tech														D				

INVENTORY OF POSTSECONDARY LEVEL VOCATIONAL PROGRAMS OFFERED IN 1972-73 IN PROPRIETARY, NON-PROFIT AND PUBLIC INSTITUTIONS

Boston Area (Page 4)

KEY
A=Associate Degree
D=Diploma
C=Certificate

	BUSINESS AND COMMERCE							TRADE & TECHNICAL				HEALTH SERVICE						
	Secretarial & Office	Accounting	Data Processing	Real Estate	Management & Bus. Admin.	Travel & Modelling	Other	Trade	Technical	Art, Photography, Fashion Design	Cooking, Floral Design, Food Management	Nursing & Dental Hygenist	Medical & Dental Assisting	Medical & X-Ray Tech.	COSMETOLOGY (includes Barber)	FLIGHT	PUBLIC SERVICE	OTHER
INDEPENDENT NON-PROFIT SCHOOLS CONT.																		
Newton-Wellesley Sch of Nursing												D						
Newton Wellesley Hosp Sch of X														D				
Quincy City Hosp Sch of Nursing												D						
Quincy City Hosp Sch of X-Ray														D				
N.E. Baptist Hosp Sch of Nursing												D						
Somerville Hosp Sch of Nursing												D						
Waltham Hosp Sch of X-Ray														D				
VOC/TECH INSTITUTES AND OTHER PUBLIC SCHOOLS OFFERING POSTSECONDARY PROGRAMS																		
Boston Girls Trade High School												C	C					
Quincy Vocational-Technical H.S			C						C			C	C	C				
Waltham Vocational-Tech. H.S.												C						
Weymouth Vocational-Tech. H.S.									C									
COMMUNITY COLLEGES																		
Bunker Hill CC	A	A		A*	A		A*			A*		A*C*	C*	A*			A	A
Massachusetts Bay CC	A	A	A		A		A		A			A		A			A	A
Roxbury CC	A	A			A		A			A							A*	A
OTHER																		
Acouinas Jr. College of Bus.(W)	A,D						A						A					
Acouinas Jr. College of Bus.(N)	A,D																	D
Bentley College		A,C			A													
Cambridge Jr. College					A													
Chamberlayne Jr. College	C	C	C		C		C		C	C								
Fisher Junior College	A,C						A						A					A
Franklin Institute of Boston									A,C	C								C
Garland Jr. College							A,C			A,C	A,C							A
Graham Jr. College	C				A		A											
Laboure Jr. College												A						
Lasell Jr. College	A,C						A					A	A					
Mt. Ida Jr. College	A				A		A						A					
Newbury Jr. College	A,D	A	A		A		A											
New Eng. Insti. of Ana. , SS &																		
Newton Jr. College	A,C		A,C		A,C				A,C			A						
Northeastern University					A				A			A	A,C	A,C				
Quincy Jr. College	A				A													
Suffolk University					A												A,C	A
Wentworth Institute									A,C									
Wheelock College																		

Closed: Planned:

III.D. ENROLLMENTS IN POSTSECONDARY VOCATIONAL PROGRAMS AND GRADUATES OF PROPRIETARY SCHOOLS

Total Number Of Students Enrolled In Postsecondary Level Vocational Programs In Massachusetts, By Subject

Total Number of Students Enrolled In Postsecondary Level Vocational Programs in Massachusetts, By Area

Summary of Enrollments And Graduates In Proprietary And Independent Vocational Schools by Category Of School

Enrollments And Graduates In Proprietary And Independent Vocational Institutions By Type And Length of Program

Number Of Proprietary And Independent Schools In Massachusetts, Enrollments and Number Of Graduates By Area

TOTAL NUMBER OF STUDENTS ENROLLED IN POSTSECONDARY LEVEL VOCATIONAL PROGRAMS IN MASSACHUSETTS, BY SUBJECT

	BUSINESS & OFFICE	TRADE & TECHNICAL	MEDICAL & HEALTH	COSMETOLOGY	OTHER	TOTAL
PROPRIETARY SCHOOLS	10,635	13,053	1,118	1,511	3,035	29,352
CORRESPONDENCE SCHOOLS						6,000
INDEPENDENT NON-PROFIT SCHOOLS	580	1,547	5,832	--	--	7,959
VOC/TECH INSTITUTES AND OTHER PUBLIC SCHOOLS OFFERING POSTSECONDARY PROGRAMS[1]	217	773	1,362	92	390	2,834
COMMUNITY COLLEGES[2]	6,487	3,469	1,990	24	1,895	13,865
OTHER DEGREE-GRANTING		----- DATA NOT YET COMPILED -----				
TOTAL (excluding Other Degree-Granting)	17,919	18,842	10,302	1,627	12,320	60,010

[1] Totals from Massachusetts Department of Education's Enrollment Data FY 1972 by Program for "Postsecondary" Programs. Schools offering these programs are different for FY 1973 but enrollment data has not been updated.

[2] Totals from Massachusetts Department of Education's Enrollment Data FY 1972 by Program for "Postsecondary" and "Adult Supplementary" programs. Data for Roxbury Community College and Bunker Hill Community College is for Fall, 1973.

TOTAL NUMBEP OF STUDENTS ENPOLLED IN POSTSECONDAPY LEVEL VOCATIONAL PROGRAMS IN MASSACHUSETTS, BY APEA

	SPRINGFIELD	PITTSFIELD/ NORTH ADAMS	AMHERST/ NORTHAMPTON	WORCESTER	FITCHBURG/ GARDNER	FRAMINGHAM	LYNN/SALEM	ANDOVER/ LOWELL	BURLINGTON/ BEDFORD	BROCKTON	FALL RIVER/ NEW BEDFORD	FALMOUTH/ BARNSTABLE	BOSTON	TOTAL
PROPPIETARY SCHOOLS	2674	311	147	823	311	563	1313	850	2026	773	190	207	19164	29,352
COPRESPONDENCE SCHOOLS														6,000
INDEPENDENT NON-PROFIT SCHOOLS	504	174	--	646	296	153	572	337	20	198	678	--	4381	7,959
VOC/TECH INSTITUTES & OTHER PUBLIC SCHOOLS OFFERING POSTSECONDAPY PROGRAMS[1]	115	203	43	421	88	11	112	461	2	786	206	50	336	2,834
COMMUNITY COLLEGES[2]	4979	588	642	1127	385	--	1719	830	174	524	670	488	1741	13,171
OTHER DEGREE-GRANTING			----- DATA NOT YET COMPILED -----											
TOTAL (excluding Other Degree-Granting)	8270	1276	832	3017	1080	727	3716	2478	2222	2281	1744	745	25622	60,010

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[1] Totals from Massachusetts Department of Education's Enrollment Data FY 1972 by Program for "Postsecondary" programs. Schools offering these programs are different for FY 1973 but enrollment data has not been updated.

[2] Totals from Massachusetts Department of Education's Enrollment Data FY 1972 by Program for "Postsecondary" and "Adult Supplementary" programs. Data for Roxbury Community College and Bunker Hill Community College is for Fall, 1973.

SUMMARY OF ENROLLMENTS AND GRADUATES IN PROPRIETARY AND INDEPENDENT VOCATIONAL SCHOOLS BY CATEGORY OF SCHOOL

Category	Number Enrolled	Number of Graduates
Business & Office	11,215	7,124
Medical & Health	6,950	2,912
Trade & Technical	14,800	6,334
Cosmetology	1,511	1,042
Other Institutions	3,035	2,622
TOTAL	37,311	19,934
Correspondence	6,000	
TOTAL	43,311	
Of Other than Correspondence Schools:		
Proprietary Schools	29,352	17,259
Independent Schools	7,959	2,675

Note: In cases where numbers were not available, estimates were made.

ENROLLMENTS AND GRADUATES IN PROPRIETARY AND INDEPENDENT VOCATIONAL INSTITUTIONS BY TYPE AND LENGTH OF PROGRAM

	Business and Office	Medical and Health	Trade and Technical	Cosmetology	Other Institutions	TOTAL
ENROLLMENTS IN 1972-73 ACADEMIC YEAR						
Less than 3 mos.	3445	-	869	-	-	4314
3 to 6 mos.	570	-	1177	-	-	1747
6 to 12 mos.	1080	32	1615	1436	-	4163
1 year	1893	435	105	-	-	2433
1 to 2 years	2685	960	7871	75	3035	14,626
2 years or more	1542	5523	2963	-	-	10,028
TOTAL	11,215	6950	14,600	1511	3035	37,311
GRADUATES IN 1972-73 ACADEMIC YEAR						
Less than 3 mos.	3257	-	839	-	-	4096
3 to 6 mos.	350	-	1010	-	-	1360
6 to 12 mos.	694	17	708	1004	-	2423
1 year	1128	355	84	-	-	1567
1 to 2 years	1223	701	2460	38	2622	7044
2 years or more	472	1839	1133	-	-	3444
TOTAL	7124	2912	6234	1042	2622	19,934

NUMBER OF PROPRIETARY AND INDEPENDENT VOCATIONAL SCHOOLS IN MADDACHUSETTS ENROLLMENTS AND NUMBER OF GRADUATES BY AREA

	Springfield	Pittsfield/ North Adams	Amherst/ Northampton	Worcester	Fitchburg/ Gardener	Framingham	Salem/Lynn	Andover/ Lowell	Burlington/ Bedford	Brockton	New Bedford/ Fall River	Falmouth/ Barnstable	Boston	TOTAL
BUSINESS & OFFICE														
Number of Schools	11	0	0	4	0	1	3	1	2	3	1	1	29	56
Number Enrolled	1026	-	-	310	-	500	540	350	160	210	390	70	7659	11215
Number of Graduates	699	-	--	202	-	340	376	140	132	150	110	63	4912	7124
MEDICAL & HEALTH														
Number of Schools	7	4	1	5	3	3	12	8	2	5	3	0	50	103
Number Enrolled	504	174	10	583	296	163	578	381	20	218	296	-	3727	6950
Number of Graduates	180	66	4	183	94	53	240	145	8	92	94	-	1753	2912
TRADE & TECHNICAL														
Number of Schools	7	0	0	1	0	0	2	0	2	2	0	0	34	48
Number Enrolled	1128	-	-	328	-	-	400	-	1297	59	-	-	11388	14606
Number of Graduates	713	-	-	131	-	-	200	-	511	53	-	-	4626	6234
COSMETOLOGY														
Number of Schools	3	1	0	3	1	1	3	5	0	2	5	0	18	42
Number Enrolled	109	37	-	108	37	36	110	182	-	73	182	-	637	1511
Number of Graduates	74	25	-	75	25	26	76	128	-	51	128	-	434	1042
OTHER INSTITUTIONS														
Number of Schools	3	2	1	1	2	1	2	2	4	3	0	1	1	23
Number Enrolled	411	274	137	137	274	17	257	274	569	411	-	137	137	3035
Number of Graduates	357	238	119	119	238	N/A	227	238	491	357	-	119	119	2622
TOTALS														
Number of Schools	31	7	2	14	6	6	22	16	10	15	9	2	132	272
Number Enrolled	3178	485	147	1466	607	716	1885	1187	2046	971	868	207	23548	37311
Number of Graduates	2023	329	123	710	357	419	1119	651	1142	703	332	182	11844	19934

Note: In cases where numbers were not available, estimates were made.

III.E. STATE LICENSING REQUIREMENTS AND APPLICATION FOR DEGREE-GRANTING AUTHORITY FOR PROPRIETARY AND INDEPENDENT SCHOOLS

In Massachusetts, licensing requirements vary considerably by type of institution. The following types of schools will be considered in the discussion of licensing: Private Trade Schools, Private Business Schools, Correspondence Schools, Nursing Schools, Cosmetology Schools, Barber Schools, Tractor Trailer Schools, Electrology Schools, Schools of Dental Assistance, Schools of X-Ray Technology, and Flight Schools.

Private Trade Schools: 40 currently licensed

Private trade schools are licensed by the Massachusetts Department of Education, and the licenses are renewed annually. To apply for a license, a private trade school must fill out an application asking about the organization of the school, the faculty and their salaries, admission requirements, guidance and placement, diploma and certificate requirements, grading and attendance requirements, costs to students, hours for each course, other fees, school calendar, equipment inventory, name and number in each course. The school must also submit personal data forms for the teachers which describe their trade, subject taught, and background. The reason for this is to find out whether they have had teacher training; if not, it will be suggested that they get some. A representative from the Department of Education makes a visit to the school, and the Department of Public Safety and the Fire Department make inspections of the facilities. The school is also required to submit financial statements to the Department of Education for review. There is no bond requirement for private trade schools. The procedure for application is repeated every year for renewal approval.

Private Business Schools: 46 currently licensed

Private business schools are also licensed by the Department of Education and their licenses are renewed annually. As with the private trade schools, they must submit an application form which describes the training and experience of the instructors, the facilities and equipment of the school, the form and content of the courses, the fields of instruction offered by the school, and the form of any contract to be executed by a particular student. The school must prove financial eligibility before applying for a license and must furnish a bond in the amount of $25,000. All advertising must be approved by the Department of Education. Each course of instruction is considered and approved separately. The schools are visited by representatives of the Department of Education and the facilities must also be inspected by the Department of Public Safety and the Fire Department. As with the private trade schools, application must be made each year.

Correspondence Schools (located in Massachusetts): 16 currently licensed

The Massachusetts Department of Education also licenses correspondence schools which are located in Massachusetts. As with the trade and business schools, the correspondence schools must submit application forms detailing personal data on the teachers, management data, and a financial statement.

They are required to furnish a bond in the amount of $2,000 and visits to the schools are made by representatives of the Department of Education. Licenses for correspondence schools are also renewed annually.

Nursing Schools

The Massachusetts Board of Registration for Nurses approves all nursing schools. In order for a person to take an exam for registration as a professional nurse, he/she must be a graduate of an approved school. A school applies for initial approval which is renewed one year after it is originally granted. Full approval is then obtained and thereafter, there is a review of the school every five years. Each school is required to file an annual report for interim evaluation. For approval, the school is inspected and an evaluation is made of its proposed program. A nursing school must meet specified requirements for administration and organization, faculty, students (selection, entrance requirements, transfer), and facilities. The curriculum is standard and must follow the guidelines set forth by the Board of Registration.

Cosmetology Schools

Cosmetology Schools must be licensed by the Board of Registration of Hairdressers (Massachusetts). Licenses are renewed annually. To apply for a license, there must be an inspection by the Department of Public Safety. A school must also furnish a bond of $5,000 if the enrollment is less than 25 students, and $10,000 if there are more than 25. The curriculum is standard and is designed so that the student can pass the examination administered by the Board of Registration.

Barber Schools

Like cosmetology schools, barber schools are licensed by the Board of Registration of Hairdressers (Massachusetts). Licenses are renewable every two years. An inspection of the premises is made and there must be 30 barber chairs and 30 sinks in the school. The Board of Registration also reviews financial statements for each of the schools.

Tractor Trailer Schools

Tractor trailer schools are licensed by the Massachusetts Registry of Motor Vehicles. A school must be started by a person who is an instructor -- he must have been an instructor for two years prior. The premises are then inspected by the Registry and by the Department of Public Safety. There must be an off-street training area. The license is renewed annually following an inspection. There is no requirement for posting a bond and the Registry does not concern itself with the finances of the school. Occasionally, they may request a copy of the articles of corporation.

Electrology Schools

Electrology schools are licensed by the Board of Registration of Electrologists in Massachusetts. Licenses are renewed every two years. All instructors in the school must be "licensed instructors", one of the two classifications of electrologists. There are strict requirements for facilities -- there must be a certain number of sinks in relation to the number of students, there must be one machine per student, the machines must be FCC approved. The schools are visited frequently by member of the Board. There are curriculum requirements, as the graduates of the schools will take a standard state exam for licensure. The Board also requires the school to inform them of the student contract and to submit a copy of the school manual. Each school is required to post a bond -- $500 for schools with less than 25 students; $2,500 for schools with more than 25 students.

Schools of Dental Assisting

At present, schools of dental assisting must be accredited by the American Dental Association. There is no agency in the State which is required to grant them a license or approval. The exam which a dental assistant takes is national, not state. Probably before too long there will be a call for state licensing of dental assistants, at which time the state will want to license the programs.

Schools of X-Ray Technology

Like schools of dental assisting, schools of X-Ray Technology are accredited nationally by the American Board of Radiology. A student must pass a national exam after graduation in order to be registered as a radiologist.

Flight Schools

There are no state or federal requirements for licensing or approval of flight schools in Massachusetts. They are generally approved by the FAA, although this is not mandatory. Flight schools may also obtain approval of the Massachusetts Department of Education. Many flight schools desire approval by the Veteran's Administration, and in order to obtain this they must first be approved by the FAA and the Department of Education. Most flight schools do seek some sort of approval as this will help them to attract students.

Driving Schools

Schools of driver education must be approved by the Registry of Motor Vehicles. Like the tractor trailer schools, a driving school must be started by someone who is a licensed instructor and has been so for two years prior. The premises are inspected by the Registry and by the Department of Public Safety. The license is renewed annually.

Not Included in Licensing Procedures

-other avocational schools (such as schools of dance, self improvement, self defense, charm, language, etc.).

-security and investigations schools

Degree-Granting Authority for Proprietary Schools

Proprietary schools may apply to the Board of Higher Education in Massachusetts (as of June 15, 1973) to obtain degree-granting authority. There are eight guidelines to be followed when making application:

(1) A school must have a Board of Trustees with a minimum of seven members. It must act according to a list of functions and responsibilities set forth by the Board of Higher Education.

(2) A high school degree or its equivalent must be a prerequisite for admission into the school seeking degree-granting authority.

(3) Degree status, tuition charges, other charges and refund policy for proprietary institutions must be clearly stated in the publicity of the institution.

(4) Clear and precise records of the financial status of the institution must be a matter of public record.

(5) The status of course credits amassed and the records of graduates receiving transfer credits for those courses or records on jobs and wage rates of graduates must be a matter of public record.

(6) The institution must furnish the Board of Higher Education with 300 copies of its annual report. (This is to assure public access to information on degree-granting proprietary institutions).

(7) A proprietary institution may petition for any degree the Board of Higher Education has the authority to grant.

(8) Requests for degree granting authority will be processed through the Board of Higher Education's usual degree-granting procedures. A Visiting Committee will be established to address itself to the above guidelines and criteria. The Committee would expect that an institution would provide services to students and academic programs at a level and quality comparable to similar non-profit institutions. Degree-granting authority will be reviewed at three-year intervals.

III.F. STUDENTS AND OPERATIONAL CHARACTERISTICS OF PROPRIETARY SCHOOLS

Data on students and operational characteristics of proprietary schools in Massachusetts will be gathered extensively in Stage II of this research effort. However, some general impressions will be presented here on the basis of a number of interviews with school directors and of responses to questionnaires used for the 1973 study of continuing education in Massachusetts: Strengthening the Alternative Postsecondary Education System: Continuing and Part-time Study in Massachusetts (George J. Nolfi and Valerie I. Nelson, University Consultants, Inc. 1973).

Student Characteristics

There appear to be two types of clienteles in proprietary institutions. First are the students clearly enrolled for job-related reasons. They are taking courses in proprietaries for job skills, either beginning or refresher courses. In this category are many types of students: young high school graduates, dropouts, housewives, returning veterans. They are likely to be lower, lower-middle or middle class in background. Some trade schools cater mainly to men; other schools, such as business and cosmetology, mainly to women.

A second but smaller group of students are those enrolled for recreational reasons. They are taking courses in art schools, cooking schools, language schools, and flight schools. These students are likely to be middle or upper-middle class in background.

Operational Characteristics

Although proprietary schools vary greatly in objectives, operations, and quality of training, the following general characteristics will apply to most schools:

--a perception of two clients --the student and the businessman who will hire the graduate

--set up in response to a need in the labor market for training in a specific skill. Three pre-conditions: students must want training, training and facilities must be reasonable in cost, and graduates must be placeable

--specialization in a specific cluster of skills--schools feel more comfortable operating in one area alone

--practical instruction, short and intensive modules

--operating budget:

recruitment	25-30%
instruction	25-30%
administration	12-18%
facilities	12-15%
profit	0-10%

IV. POSTSCRIPT

THE CONTEMPORARY ROLE OF PROPRIETARY INSTITUTIONS IN VOCATIONAL EDUCATION IN MASSACHUSETTS*

This is an overview and summary of the Stage I report and of research issues being addressed in Stage II of this research project. The following sections are included:

Complex Policy Issues and the Need for Objective Research
Description of Proprietary Schools
The Inadequacy of Past Research to Meet Policy Needs
What is Known and What is not Known about Proprietary Schools
Policy Questions Addressed in Stage II

Complex Policy Issues and the Need for Objective Research

University Consultants, Inc., with funding from the Massachusetts Advisory Council on Education and Professor John Dunlop of the Harvard University Economics Department, has completed Stage I of a two-stage research effort into the role and activities of proprietary schools in the state of Massachusetts. The Stage I report is not intended to present final conclusions of research, but rather represents about one-tenth of the total study effort. The objectives of Stage I were limited to produce a basic objective review document which brings together available data on the activities of proprietary and public schools in the State, reviews the literature and research to date, clarifies the several complex research and policy issues characteristic of this subject and specifies the precise research questions to be answered in the Stage II effort in 1974.

For many years, proprietary institutions in the State of Massachusetts have trained students in business, trade and technical, medical, cosmetology, and other fields, yet their role in education and training of youth and adults has not been researched nor recognized. As many as 270 proprietary and independent non-profit schools operate enrolling 37,000 students a year in vocational courses alone. Another 6,000 students enroll in correspondence schools (by comparison, the community colleges had a total enrollment of 42,134 full and part-time students in Fall, 1972).

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* G. Nolfi, V. Nelson, and R. Freeman (University Consultants, Inc., 45 Hancock Street, Cambridge, Mass. 02139 (617) 491-5828, March 1974).

Over the next several years the State of Massachusetts will need increasingly to clarify and define its policies toward proprietary schools: the 1202 Commissions to be set up this year require representation from proprietary schools; the Office of Manpower Affairs will make decisions about using funds under the new Comprehensive Employment and Training Act to support or not support students at proprietary schools (as in past programs); the proposed Massachusetts Open Learning Network will consider formal transfer and credit arrangements with non-degree-granting institutions for the competencies individuals develop in such settings; the Board of Higher Education will continue to consider program approval for degree-granting institutions which may duplicate offerings of proprietary schools; the Department of Higher Education will continue to implement licensing procedures for proprietary schools; and finally, long-term policies will be discussed to improve the interaction of education and the labor market.

The formulation of policies in these areas requires a greater understanding about proprietary schools than current research and theory can provide. Research and reporting into the role and scope of proprietary schools has been limited and piecemeal. All the recent studies deal with a handful of schools and students, yet the proprietary school sector in Massachusetts is large and extremely diverse. It is therefore essential that, before new legislation or policies are developed in the State, the role and activities of proprietary schools be assessed in depth and better understood.

Description of Proprietary Schools

"Proprietary" schools were first developed in business fields in the mid-nineteenth century and they have operated in a variety of fields since that time. They typically are small (50-500 students) organizations specializing in training of one particular skill or avocation. Courses are generally organized in short, intensive modules and the format is more practical than academic in orientation. Classes are run at many hours to be convenient to the working person, and at graduation vocational proprietary schools usually award certificates or diplomas. Few in Massachusetts grant degrees, although many offer A.A.-equivalent programs without the general education component and competencies gained by students are comparable. Since the reputation and hence the financial survival of the vocational proprietary schools depends on job placement of graduates, schools try to provide up-to-date training by maintaining close contact with selected employers in their fields and faculty are selected more for work experience than for academic background. There is great diversity in the quality of proprietary schools: there is research evidence that the more reputable ones offer worthwhile training programs, but others practice deceptive advertising, charge excessive fees, and have low job placement rates.[1]

For many years, proprietary schools have operated outside of the formal and highly visible educational structure of degree-granting public and private high schools, community and junior colleges, and colleges. Any student choosing a proprietary school did so on his own, since few guidance counsellors recommended proprietary schools, and except for some licensing requirements, educators and government officials had little contact with these schools. Proprietary schools and large public educational systems were content to leave each other alone since by and large they were not in direct competition. Proprietary schools often functioned in fields where public systems did not have programs or simply did a better job than the local system. For example, proprietary schools were the first to teach typing in the 1880's and computer programming and keypunch skills in the 1960's.[2] The only restrictions on proprietary schools were licensing requirements in some states, having to do with financial soundness of the institution and not the quality of instruction. G.I. Bill and Vocational Rehabilitation benefits could go to students at proprietary schools, but there were no formal transfer arrangements into the public or private educational system.

Over the last decade, however, competition has become more direct as the community colleges and vocational/technical institutes have been developed to offer more extensive programs in vocational and avocational fields. The laissez-faire policy toward proprietary schools has been questioned. Educators and policy-makers are now concerned about what the proper role of proprietary schools should be in the overall education and training system in this country. Should proprietary schools be left alone as in the past, should they be better utilized by direct government support or contracting, or should the student receive financial aid which he can take to any proprietary, private or public school? How should the student as consumer be protected from deceptive business practices and finally, should proprietary schools be included in statewide and nationwide planning efforts?

Several trends have been clear over the last few years: In a number of states, proprietary schools may now apply for degree-granting authority. The national proprietary school accrediting associations have been asked to join the Federation of Regional Accrediting Associations along with the college and university associations. Students in accredited proprietary schools are now eligible for federal student aid funds. Many colleges are giving transfer students credit for prior work at proprietary schools. Pennsylvania and New York incorporate proprietary schools into open learning systems as community resources not to be duplicated by new public programs. At the same time, however, concern increases among policy-makers that proprietary schools, as well as public and non-profit schools, provide the education and training that they claim to offer. Increasingly, states are seeing the proprietary school sector in times of limited resources as an educational resource not to be unnecessarily duplicated by public programs but to be considered as part of the overall postsecondary resources in the state. The federally-mandated 1202 Commissions will aid this process.

The Inadequacy of Past Research to Meet Policy Needs

At a time when major policy issues have been and are being discussed, very little was known about the actual workings of proprietary schools. Estimates of numbers of schools and students are just that and no more; state departments of education do not even maintain comprehensive lists of vocational and avocational schools.

An assessment of the role of proprietary schools in education and training is not possible on the basis of research to date and thus recommendations for policy changes are often grounded in speculation and not fact. Those advocating greater participation of proprietary schools cite the quality of training in the accredited business and trade and technical schools while those wary of profit-making in education cite FTC findings of deceptive practices.

One view would have it that proprietary schools, spurred by market competition, operate efficiently and innovatively to meet the changing and diverse training needs of students. As such, they provide a valuable service to a worker investing in his skills and to the economy in providing trained manpower. Public and non-public schools would, by contrast, be wasteful and unresponsive in their bureaucratic functioning.

Another view would have it that proprietary schools exist to a large extent by attracting naive and impressionable young people and by promising jobs they cannot possibly get. The owners reap profits from the high price, low quality programs, but students fail to achieve their goals.

What is Known and What is not Known about Proprietary Schools

A study by A. Harvey Belitsky, Private Vocational Schools and Their Students: Limited Objectives, Unlimited Opportunities[5] recommends the flexibility of operation and organization of proprietary schools to meet the needs of disadvantaged students. Examples are cited of flexible admissions criteria, programs offered at night and in convenient locations, changes in curriculum to meet employer needs, and special adaptations of short-term, individualized courses to motivate the non-academic or disadvantaged student. However, the study was based on a limited number of schools.

-- A study by ICF, Inc., Proprietary Business Schools and Community Colleges: Resource Allocation, Student Needs and Federal Policies[4] found that well-established business schools compare well with public community colleges. They make continuous changes in operation and instruction while community colleges spread resources too thin to develop "sharply-focussed and effective" curriculum. Proprietary students stated that they chose proprietary schools over public programs for 1) their superior placement record, 2) job-specific training, and 3) a shorter time to completion. Figures were cited for graduates of 100 accredited business and technical programs: 59% would enroll in the school if they were facing the choice again, 81% are in training-related jobs and 70% are very satisfied or satisfied with their current jobs.

--A study by AIR, A Comparative Study of Proprietary and Non-Proprietary Vocational Training Programs[5] found both proprietary and non-proprietary schools are effective in providing students with marketable skills.

Resulting recommendations are that both proprietary and non-proprietary schools be examined for evidence of benefits and costs of training before federal funds are allocated; "no institution should be discriminated against on the basis of ownership status." In addition, regulation of standards in advertising, recruiting, refunding, and other policies should be strict for both private and public schools.

--A study by Wellford Wilms, Profitmaking and Education[5] finds that proprietary school students as compared to public school students are: more likely to be high school dropouts, from a general or vocational program rather than a college preparatory program in high school, of minority race, and have lower verbal skills. Socioeconomic backgrounds and motivation for job achievement are similar. In spite of differences in academic background and skills, students in proprietary and public programs expect the same employment gains from training.

--David O'Neill (1970) found proprietary schools to be more cost-effective than in-house Navy training programs for electronic technicians and recommended greater Navy contracting to private schools.[6]

--Sam Harris Associates(1973) found proprietary schools less cost-effective in MDTA programs than public schools, but attribute this to the fact that the public colleges and schools absorb much of the overhead costs of the programs while proprietary schools charge full cost including overhead.[7]

--Richard Freeman (1973) found that the private rates of return from formal schooling and proprietary training are roughly equal; but, since the public contributes less support to proprietary schools or students, the rate of return to society is higher for proprietary school training than formal schooling.[8]

--The Boston Globe Spotlight Team (1974) finds some proprietary schools violate State laws with respect to advertising, refunds to students, licensing of salesmen, and approval of teachers.[9] The Globe investigation, however, only covers eight of the 183 proprietary resident vocational schools in the State and includes schools which have been suspected of bad business practices. The results found should not be extended to the other 175 schools not covered. Secondly, while unfair sales practices are found, they may not reflect on the quality of programs or graduation and placement rates.

-- The Stage I report of this research effort documents the wide variety and scope of proprietary schools in the State of Massachusetts. Program inventories for all public, non-profit, and proprietary postsecondary vocational programs have been developed which show overlap of certain public, non-profit and proprietary programs, along with complementary specialization of proprietary schools in fields non covered by public schools. The development of Federal and State vocational education policies is delineated and issues raised for consideration.

The research to date calls attention to the activities of proprietary schools, cites characteristics of their behavior, and documents their legitimacy in certain fields of training in adding to a student's earning capacity. This research, however, only begins to address some of the fundamental questions about the operations of proprietary schools: 1) What is the role of proprietary schools in vocational and avocational training? 2) What is the nature of the process of proprietary training? Are there differences in training among types of schools -- are there only differences in scheduling as cited in several studies or are there more fundamental differences in training techniques? 3) How do proprietary schools operate as business enterprises? 4) What kind of person goes to a proprietary school, for what reasons, and does he benefit from the programs? 5) How do employers value proprietary school training? as compared to public or non-profit school training? 6) What is the policy context in which proprietary schools operate?

Policy Questions Addressed in Stage II

The increasing government support of and student demand for vocational education and training, a search in traditional higher education for new ways of educating students, and a concern for protecting the student as consumer call for a greater consideration of the role and activities of proprietary schools. Over the next few years State investments in vocational programs, support of students, licensing, planning and coordination policies and legislation will be developed with criteria of efficiency, responsiveness and equity. Public policy should encourage all institutions to provide vocational training in an efficient manner and with high quality. The goals of programs include job training in a specified curriculum, quality, job placement, general education, student attitude change, and others. Among these goals, State and individual spending should get its best return, whether among proprietary or public programs. Public policy should encourage institutions to be responsive to student interests and innovative in teaching techniques and curricula. Finally, public policy and support should be equitable in its distribution across students. Increasingly, policymakers will apply the same criteria, such as labor market success of graduates and competencies developed, to public, non-profit, and proprietary schools. The output of the particular program will be more important than its particular form of governance.

These policy criteria serve to define the kinds of questions addressed in this study. What do proprietary institutions do, in what subjects, with what kinds of students? In comparison, what do public and non-profit schools and colleges do? What happens to graduates of proprietary, public, and non-profit programs when they enter the labor market and over the long term? What are the objectives and goals of proprietary, public and non-profit schools, how do they operate, allocate funds, etc.? How do proprietary, public and non-profit institutions interact and how well do they individually and together serve the interests and needs of students and employers? These questions will be answered by the analysis of data gathered from student, graduate, and institutional questionnaires and by intensive case studies and interviews with proprietary and public institutions.

FOOTNOTES

1. For general characteristics of proprietary schools, see: Belitsky, A. Harvey, Private Vocational Schools and Their Students (Schenkman Publishing Co., Cambridge, Mass., 1969)

2. Fulton, Richard A., "Proprietary Schools", Encyclopedia of Educational Research, 4th Edition, (MacMillan Company, New York, 1969), p. 1026.

3. Belitsky, op. cit.

4. Erickson, Richard W., Proprietary Business Schools and Community Colleges: Resource Allocation, Student Needs, and Federal Policies (ICF Incorporated, Washington, D.C., June 10, 1972).

5. Wolman, Jean M., A Comparative Study of Proprietary and Non-Proprietary Vocational Training Programs, Volume I (Office of Program Planning and Evaluation, Washington, D.C., Nov., 1972).

6. Wilms, Wellford W., Profitmaking and Education (Center for Research and Development in Higher Education, University of California, Berkeley, California, July 27, 1973).

7. Sam Harris Associates, "A Comparative Study of MDTA Institutional Training in Community Colleges, Public Vocational Schools and Private Institutions", Washington, D.C., May 15, 1973.

8. Freeman, Richard B., Occupational Training in Proprietary Schools and Technical Institutes, (Harvard University, August 1973).

9. The Boston Globe Spotlight Team Report on Career Training Schools, March 25, 1974 thru April 3, 1974.